

JUNE 1959

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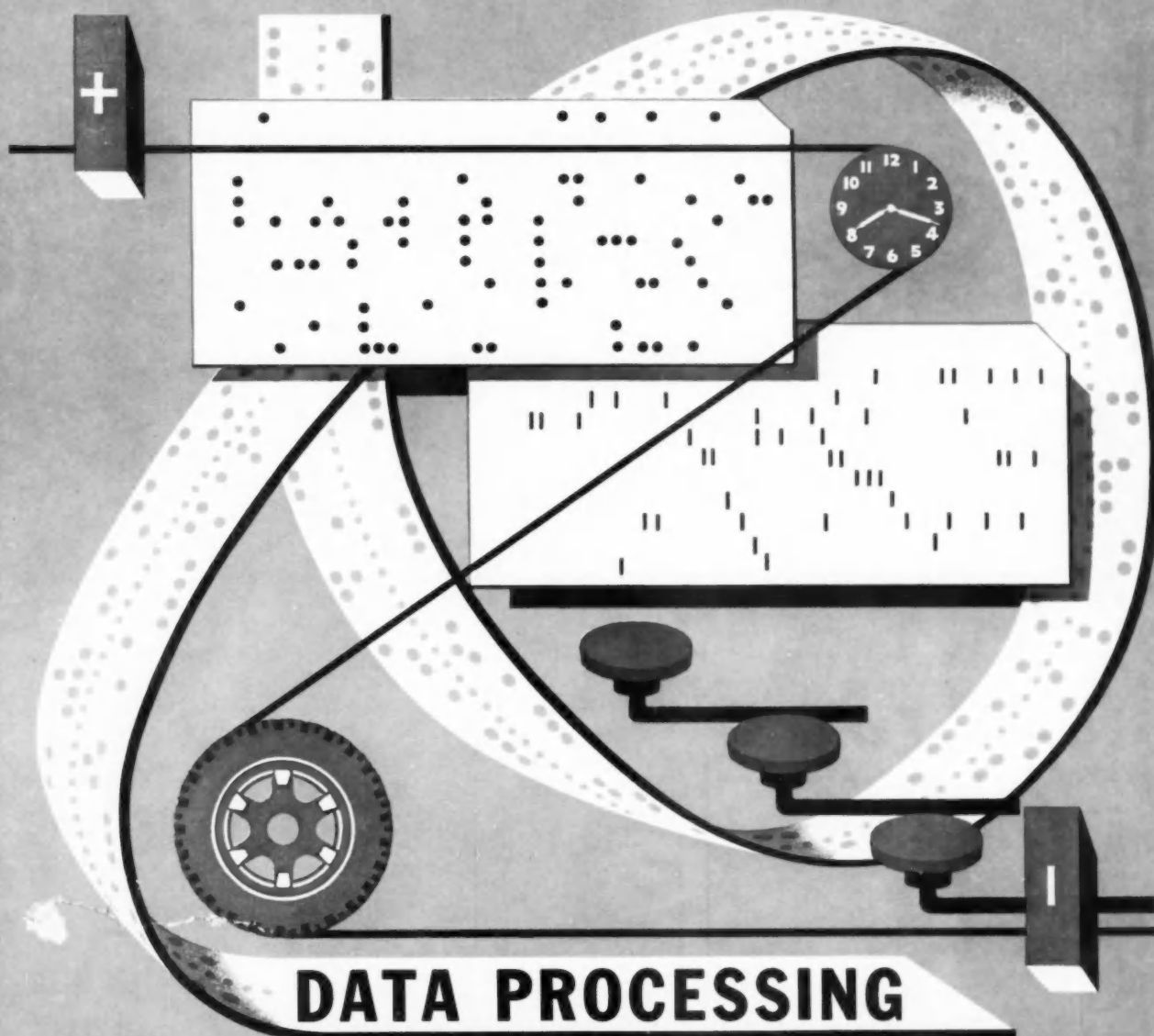
COMMERCIAL CAR JOURNAL

A CHILTON PUBLICATION

CONSTRUCTION SECTION

follows page 116

THE MAGAZINE FOR TRUCK
AND BUS FLEET OPERATORS



DATA PROCESSING

a fact-packed 14-page report beginning on page 100

ALSO IN THIS ISSUE

How to Win a Mountain of Safety Trophies
Containers Speed the Haul, Protect Freight, Cut Costs



Geared by FULLER . . .

YELLOW TRANSIT buys more Fuller-equipped KW's

Yellow Transit Freight Lines, Inc., Kansas City, Missouri, recently purchased an additional 40 diesel-powered Kenworth CBE Tractors and now operates 342 Kenworths of the same type, all equipped with Fuller 5-A-65 Heavy-Duty 5-speed Transmissions.

Superintendent of Maintenance Mel McClure says, "We specify Fuller for a number of reasons. The 5-A-65 Transmissions in our Kenworths have

given us the best of service. Maintenance costs have been low; parts and service availability along our routes is excellent. Long life, correct gear splits and freedom from downtime really appeal to our drivers and mechanics. For dependability and ease of operation . . . and to help us move more goods, more efficiently . . . Fuller Transmissions are the best."

One of the fastest-growing motor freight carriers in the country, Yel-

low Transit has more than doubled tonnage and gross revenue since 1955. The Fuller-geared fleet now operates over 17,000 route-miles throughout nine states in the Midwest and Southwest.

For lower operating costs, less downtime for maintenance, reduced driver fatigue and *greater profits*, ask your truck or equipment dealer about the Fuller Transmission best suited for *your* operation.

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James Owens stands with four different sizes of the 1100 trucks in the fleet of Abbotts Dairies.

"on all of our trucks ... big or small ..."

we use Pedrick rings", states James Owens, Maintenance Superintendent for Abbotts Dairies, Inc. "We've discovered that they give top all-around performance no matter what the driving conditions or type of truck. We get dependability with longer life at lower costs. What more can you ask?"

What about *your* truck or fleet? At your next overhaul, if you want the best, then specify Pedrick FORMFLEX Chrome piston rings. It will pay you in added service miles, reduced downtime, greater savings. WILKENING MANUFACTURING Co., Philadelphia 42, Pa. In Canada—Wilkening Manufacturing Co. (Canada) Ltd., Toronto 2.



James Owens, Fleet Maintenance Superintendent for Abbotts Dairies, Inc., one of the leading milk and ice cream companies in the United States.

DEPEND ON

Pedrick

FOR THE RIGHT RING JOB

COMMERCIAL CAR

—June 1959—Vol. 97—No. 4—

DATA PROCESSING

How to Get Your Fleet Costs Quicker... 100

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Masten Transportation 111

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JOURNAL

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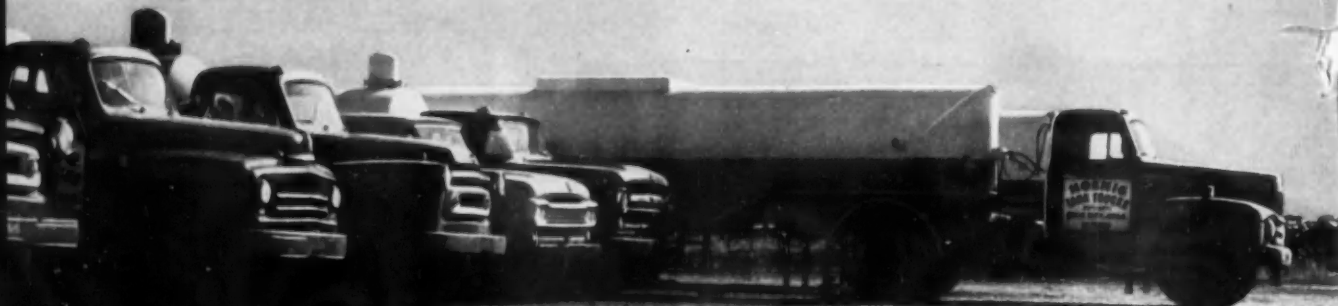
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Oil field hauler switches to Philgas* ... starts operating at a profit!



A few of the 26 units belonging to Hoenig Tank Truck
—all operated on efficient, economical Philgas.

"Until we started running our trucks on Philgas," says Mr. Karl Hoenig, owner of Hoenig Tank Truck, Oklahoma City, "we were just holding our own. Now, thanks to Philgas, we are operating at a profit."

Hoenig's big job is hauling crude from producing wells to pipe line stations with tractors pulling 5000-gallon tank trailers, about 50,000 pounds gross. The average round trip is about 40 miles—most of it over back country roads and trackless terrain. They also operate some smaller well maintenance units—vacuum trucks, pickups, steam and circulating units. In 1955 they changed their trucks over to Philgas.

Dorsey Barndt, Manager, explains it this way. "Butane-propane fuel is not vented to the atmosphere . . . it's a closed system with no chance of dust or dirt fouling fuel lines to carburetors. Before we switched to Philgas, the trucks were always stalling in the field. And in the summertime, gasoline powered units were continually vapor locking. The operational delays

from these breakdowns were really killing us. With Philgas, we have completely licked the problem . . . no more fouled carburetors or vapor locks."

Mr. Barndt also lists these savings: Reduced fuel costs . . . no fuel pump or carburetor maintenance . . . longer battery life (drivers used to run them down trying to clear vapor locks) . . . longer engine life before overhaul . . . less tire wear because Philgas delivers smoother starting torque . . . practically no dilution of engine oil.

Mr. Hoenig adds: "Philgas power is also better for stationary running . . . delivers smoother, more even power without stalling. This is important for us since our tractors spend more time pumping, loading and unloading crude, than hauling. We can honestly say that three tractors on Philgas now do the work that four used to."

Truckers everywhere are discovering that Philgas means more efficient . . . more profitable operation. Get the full story . . . write or call us today.



Dorsey A. Barndt, Manager, and (right) Karl M. Hoenig, Owner. Both agree: "Using Philgas has greatly improved our operating efficiency."



Refueling with Philgas from Hoenig's 3000-gallon tank. Fuel is butane and propane—80 and 20% for summer, 60 and 40% for winter.

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*Philgas is the Phillips Petroleum Company trademark for its high quality LP-Gas (propane, butane).

The Accident that Didn't Happen . . . Or Did It?

ON ONE OF the last cold days of winter, a truck driver died in his cab at Vaiden, Miss. He had parked on an off-highway lot, rolled-up all the windows, curled up on the seat to sleep. The engine was still running when they found him several hours later.

The Interstate Commerce Commission called it an accident. The official report explored the gory details leading up to the tragedy. There was no question that carbon monoxide was the killer. Adhering strictly to the pertinent facts, the report cited flagrant violations of rules pertaining to mechanical condition and inspection routines.

But the truly intriguing part of the story goes back to the two days just before the death. There, to our way of thinking, lies the *real cause*. There too, but by the Grace of God, was the perfect setting for a far more serious accident . . . one that didn't happen!

Consider these facts. Driver Brister worked most of Thursday at the Memphis, Tenn., service station of which he was part owner. During the afternoon he loaded his rig with imported passenger cars (He was leased to a large reputable carrier from Detroit.) Then he took off about 7:30 PM.

The log indicated that he arrived in New Orleans, La., at 1:30 PM Friday, 433 miles away. At 7:30 PM he was seen at the loading dock

in nearby Gretna and at 9:30 he left on the northbound run. There was a midnight fuel stop at McComb, Miss., and he swung into Vaiden about 5 AM for coffee and sleep. Distance from New Orleans to Vaiden: Approximately 280 miles.

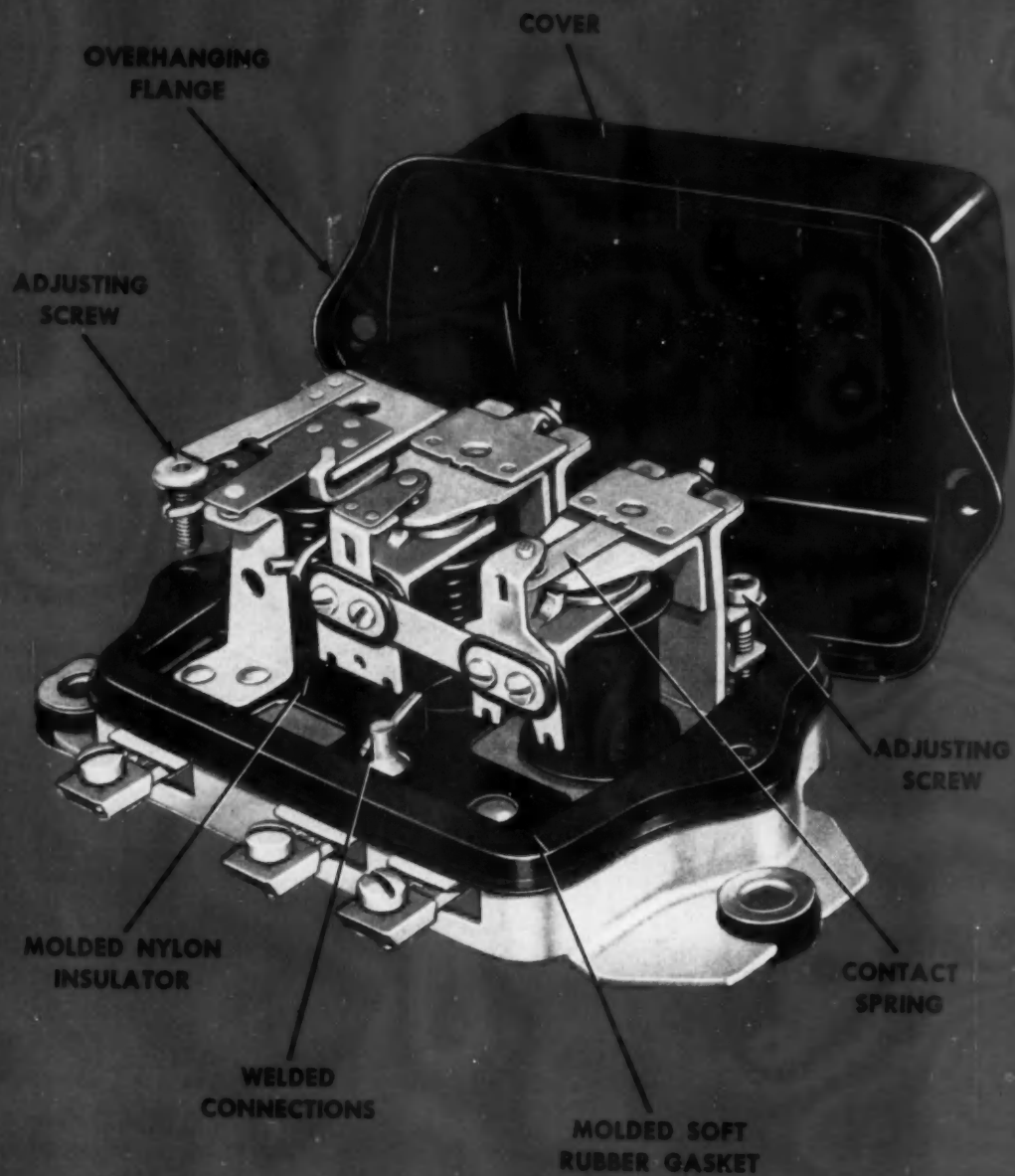
In an elapsed time of 33½ hours he had travelled 713 miles. His only possible sleep was the six hours between 1:30 and 7:30 PM Friday (but not so indicated in the report). In addition, he had worked approximately 10 hours before his initial take-off. No matter how you figure it, he was at least 43 hours away from a comfortable bed.

These then are the questions: How close did driver Brister come to falling asleep on the road? Who and how many would have been his victims in that event? How long can an *organized* industry permit such flagrant violations of hours of service Regs? Who can argue effectively against proposed new teeth in those Regs? (See page 186, this issue for details.)

P.S. Here's a brief summary on the mechanical condition: A new and larger engine had just been installed. No inspection report by carrier. No tail pipe, no muffler. A half-inch gap in the improvised floor board. No vehicle condition report by driver.

Bart Pawson
Editor

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- ② Integral sleeves of molded nylon insulator form permanent seal around rivets—assure watertight base.
- ③ New, longer, more flexible armature contact spring on voltage regulator unit assures more positive closing of contact points for smoother operation.
- ④ Welded electrical connections and highest quality tungsten and non-tarnishing precious metal contact points assure minimum resistance, maximum durability.
- ⑤ Special fine thread screw-type controls allow easy, highly accurate adjustment of all three units.

Always replace with Delco-Remy waterproof regulators. Built to highest quality standards by the world's largest original equipment manufacturer, these improved regulators are available from your car or truck dealer or the United Motors System.

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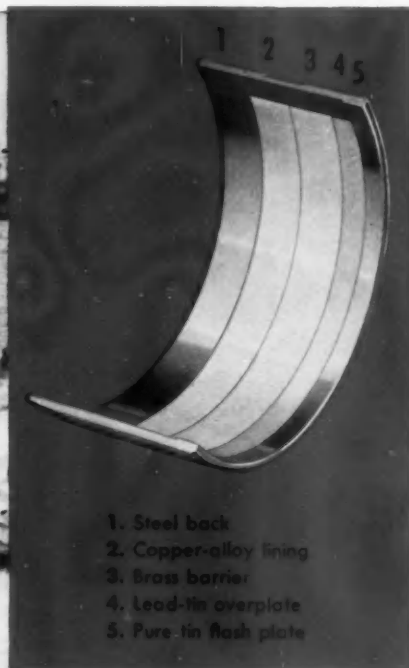


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Modern high-compression, high-horsepower engines put tremendous loads on main and connecting-rod bearings—pressures near the upper test limits of a few years ago. That's why today, more than ever, fleets *need* Federal-Mogul sintered bearings.

Research-developed for heavy-duty service, each sintered bearing has *five* distinct layers: 1. Steel back contributes strength and bonding quality; 2. Pure copper-lead powder is sintered to make the bearing surface; 3. Brass barrier insures lining stability; 4. Lead-tin overplate assures smooth "break-in"; 5. Pure tin flash plate protects against corrosion.

Your Federal-Mogul jobber gives you Fm quality in *whatever* type or size bearings you need . . . plus faster service to help get your vehicles back on the road sooner. No wonder fleet owners prefer Federal-Mogul 2 to 1! Call your jobber today.

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Mack Oil Filter Service

Down-Hill Braking

Save the Parking Brake

Heavy Duty Brake Tolerances

Passenger Car Fleet Costs

PM Intervals

Cure for Steering Column Squeak

Speed Shifting Bad Practice

Look Inside When Battery Fails

Plymouth Brake Pedal Adjustment



**TIMELY NOTES ON TRUCK, BUS, PASSENGER CAR
FLEET MAINTENANCE AND OPERATION**
briefed by ED SHEA, Technical Editor

sides, all oil passes through a full flow filter before lubricating the engine. It takes too much time before bearings and other moving parts get any lubrication.

Air should be bled from the filter after the element is changed and the filter housing filled with oil. Here's how: Start engine, loosen vent plug and bleed air from filter. Let engine run at 800-1000 rpm for five minutes. Stop engine and wait five minutes before checking oil level. Add oil if needed.

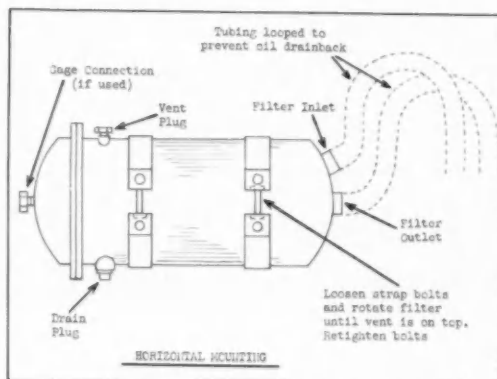
Down-Hill Braking

ON HEAVY DUTY air brakes with a down hill run, do you snub 'em or ride 'em? Here's what Bert Ogden, vice president, Consolidated Freightways, told fleetmen at a recent Purdue University maintenance conference.

"I am sure that you as maintenance men probably have had the question asked by some of your drivers. Perhaps you have had discussion among yourselves as to the best method of brake application when descending long grades in order to reach the bottom with the coolest brakes and the least strain on the braking mechanism. There are two methods advocated—one of them being the steady application of the brakes from the top of the hill clear to the bottom—the other method being the intermittent application wherein the vehicle is braked down somewhat slower than the average speed the hill is to be negotiated, and then the vehicle is allowed to drift up somewhat faster than the average and then retarded again by heavy brake application.

"The intermittent brake application advocates are of the opinion that by releasing the brakes momentarily it effects a certain amount of cooling thereby allowing the vehicle to reach the end of the grade with cooler brakes. I might add that I was of this opinion, until about three years ago. To prove or disprove the theory, several tests down a long western grade were made with the same vehicle to determine which method was the best. Let me assure you that the steady method of application from the top to the bottom at any given speed desired, will result in cooler

(TURN TO PAGE 12, PLEASE)



Mack Oil Filter Service

MACK ADVISES the following procedure to prevent possible oil drain-back on H, N, and G Series trucks equipped with horizontally-mounted full flow oil filters.

First see if the filter is mounted above or below the filter pad on the engine. If it's above the pad, oil lines should be looped upward to prevent drain-back to the crankcase. Horizontally-mounted filter should be set in bracket with vent on top (see illustration).

Here's a point that Mack stresses. When changing filter elements, the filter body should be filled through the filter inlet tubing with new oil *before starting the engine*. With a 12-qt capacity filter, it's not practical to put 25 qts of oil in a crankcase designed for 13 qts. Be-

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TRUCKS



Continued from Page 9

brakes at the bottom, more air left in the air reservoirs, less work on the compressor, and much less wear and tear on the various brake apparatus.

"The difference in average temperature of the brake drums during four different tests down a given hill was 25 deg cooler for the steady method versus the intermittent application.

"While this is not a terrific difference in temperature, think, if you will, of the reduction in strain to the brake drums by not having to make heavier applications to control the vehicle which is necessary by the intermittent application method. Think, also, of the work the compressor has to do to provide air for intermittent applications. And think, also of the safety factor wherein intermittent applications which are made too rapidly can deplete your air supply, and could in fact cause a serious accident due to lack of air."

PM Intervals

FLEET PM practices got notice in ATA's recent Data Processing study (see page 100). Checking on how fleets decide when a rig gets PM service, these facts came out. . . .

Predetermined schedules (hours or miles) are still the most used method on tractors and trailers. Tires get attention when inspection shows they need it.

About 25 per cent of reporting fleets base service on both scheduled intervals and inspection results.

Here's the breakdown:

Method	Tractors	Trailers	Tires
Pre-set schedule	220	198	66
Inspection	64	90	230
Schedule & inspection	54	51	33
No schedule	25	22	25
Total fleets	363	363	354

Speed Shifting Bad Practice

FWD WARNS against speed shifting the RoadRanger transmission. Says FWD, "Under certain conditions, it may be possible for the operator to engage a ratio in the front section and engage the clutch before the range shift in the auxiliary is completed. If this does occur, the entire load is then carried by the synchronizer discs which could result in failure

(TURN TO PAGE 16, PLEASE)



ADD BONUS RECAPS TO BIG ORIGINAL MILEAGE AND...WOW!

Total cost-per-mile really hits bottom with Lee Super DeLuxe Highway Nylons

There's one way to prove it—keep accurate tire mileage costs. Lots of smart operators do. They are the ones who *know* you can't beat Lee Nylons. Why? Simple. Rugged construction that gives long original mileage and leaves a carcass strong enough for multiple recaps.

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And the tread! Natural rubber. Special Lee design. End result: extra traction, cooler running on the road, added tire life.

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P.S. About those recaps . . . specify Lee Premium Double-Life Tread Rubber, branded for your protection, and watch your Treasurer smile.

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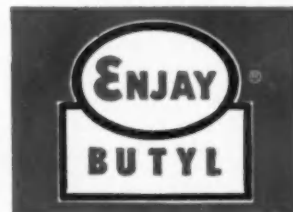
OVER 40,000,000 Butyl tubes sold in 1958! The reason? When you buy Butyl tubes, you're buying quality and economy. Butyl tubes hold air eight times better. This protection eliminates rapid tire wear caused by excessive air loss. Butyl tubes provide rugged built-in road endurance that pays off in long tire life and extra mileage. This is confirmed by a majority of retreaders who reported in a recent survey that tube-type tires give more retreads. And you'll find that Butyl tubes are the most effective way to correct tubeless tires that resist repair.

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PASSENGER CARS



Continued from Page 12

of the synchronizer. It is recommended when making a range shift, either up or down, the operator hesitate slightly when the gear shift lever reaches neutral, before the ratio in the front section is selected and the clutch engaged, to allow sufficient time for the auxiliary to synchronize and complete the range shift."

Passenger Car Fleet Costs

DEPRECIATION IS the biggest cost when it comes to operating fleet passenger cars. Runzheimer & Co., Chicago fleet specialist, says it accounts for half the cost of operating a '59 Chevrolet Bel Air with standard shift and 6-cyl engine.

Surprisingly, it's not much more—percentage-wise—for a '59 Pontiac Star Chief with Hydramatic transmission and 8-cyl engine. Depreciation cost for this one comes to 53 per cent.

Fuel costs run about 16 or 17 per cent, says Runzheimer. Here are the dollar facts—based on a 10,000-mile year.

	<i>Chevrolet</i>	<i>Pontiac</i>
Total Annual Cost	\$1264.30	\$1555.80
Insurance	256.80	267.80
State License	10.50	22.00
City License	15.00	30.00
Depreciation	637.00	836.00
Other (gas, oil, lube, repairs, tires)	345.00	400.00

Insurance covers \$50 deductible collision and \$25/50/5 liability. Fuel cost is based on 16 mpg @ 33¢ per gal for the Chevrolet, 14 mpg @ 37¢ per gal for the Pontiac.

Look Inside When Battery Fails

DID YOU ever wonder what happens when batteries fail—that is, what happens on the inside? Exide News has this to say...

"There's no general answer to this one. In normal service the positive plates wear out from use (charging and discharging) and lose their ability to store and deliver power. If the battery does not receive sufficient charge while in service or stands idle for long periods without a charge, the negative plates become sulphated and the battery will not perform. Separator failures can cause dead cells at any time during the life of the battery. This type of failure may be due

(TURN TO PAGE 36, PLEASE)

MC	GMC	GMC	GMC	GMC	GMC
EXTRA VALUE FEATURE	EXTRA VALUE FEATURE	EXTRA VALUE FEATURE	EXTRA VALUE FEATURE	EXTRA VALUE FEATURE	EXTRA VALUE FEATURE

GMC	GMC	GMC	GMC	GMC	GMC
-----	-----	-----	-----	-----	-----

Now from GMC OPERATION "HIGH GEAR"

EXTRA VALUE TRUCKS

OPEN
HERE

AT NO EXTRA
COST!

MC	GMC	GMC	GMC	GMC	GMC
EXTRA VALUE FEATURE	EXTRA VALUE FEATURE	EXTRA VALUE FEATURE	EXTRA VALUE FEATURE	EXTRA VALUE FEATURE	EXTRA VALUE FEATURE

GMC	GMC	GMC	GMC	GMC	GMC
EXTRA VALUE FEATURE	EXTRA VALUE FEATURE	EXTRA VALUE FEATURE	EXTRA VALUE FEATURE	EXTRA VALUE FEATURE	EX VA FEA

MC	GMC	GMC	GMC	GMC	GMC
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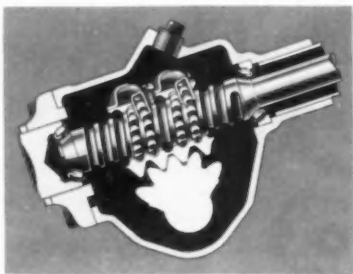
ONLY GMC G

Big, meaningful events are taking place at GMC! It's Operation "High Gear"—the most aggressive engineering, design and quality-control program ever known! This unbeatable team effort is bringing you the greatest truck values ever known...money-saving, money-making advances that save valuable time and dollars, make more profits! Accurate fleet cost records prove it!

EVERY GMC TRUCK IS LOADED
WITH EXTRA VALUE FEATURES AS
STANDARD EQUIPMENT. HERE
ARE A FEW EXAMPLES

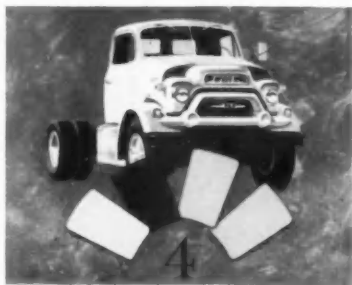


GIVES YOU ALL



EASIEST STEERING!

Standard on all GMC Trucks. GMC recirculating ball steering is the easiest mechanical steering you can get! With rolling contact of all surfaces, less effort is required for easy, positive control — on the straight-away and crowded city streets.

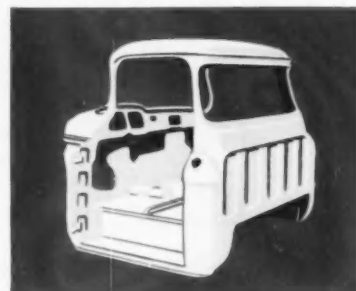
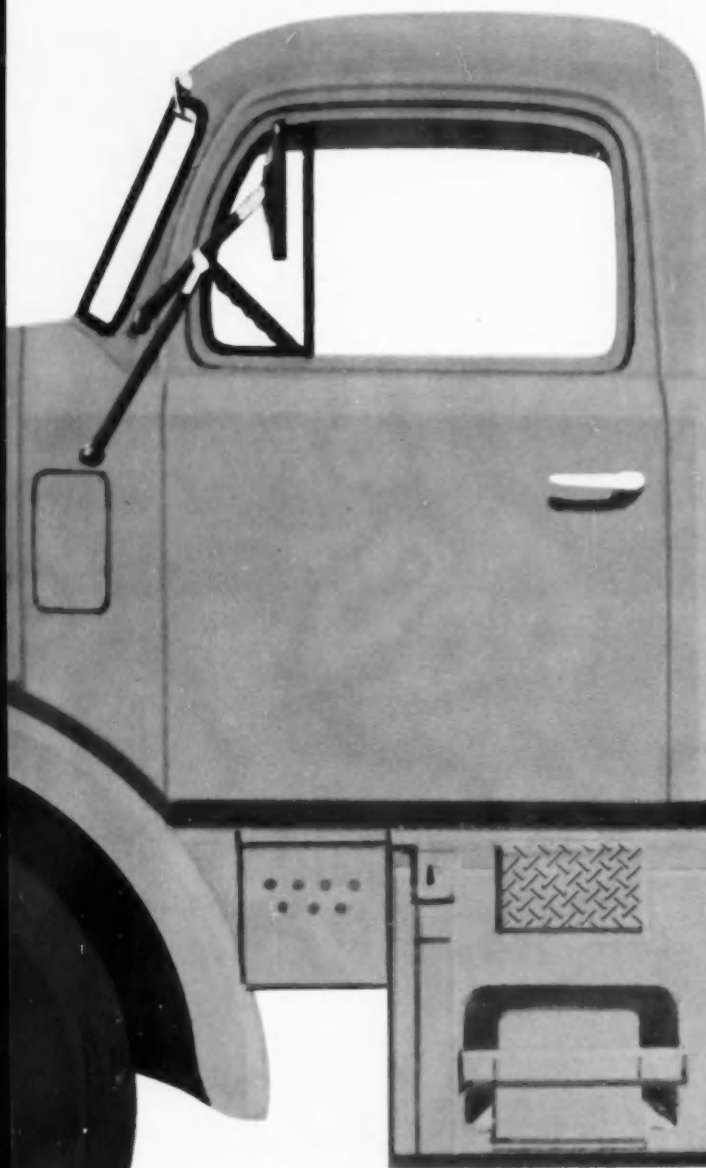


FOUR-COAT FINISH!

(Not just two or three) Standard on all GMC Trucks. There's no better paint job on any truck! GMC's lasting new look and durable rust protection cost you nothing extra.



L THESE EXTR



EXTRA STURDY CABS!

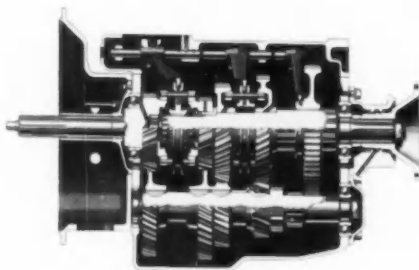
Standard on all GMC Trucks. Extra reinforcements at all stress points, ribbed gussets and extra rugged construction throughout add up to lasting strength and longer life.



QUALITY-CONTROL PERFECTION!

Standard in all GMC Trucks. Every GMC Truck must pass 268 detailed inspections just on the assembly line, plus hundreds more before and after this operation. GMC Trucks must meet rigid high-quality standards, regardless of manufacturing costs. You get the truck that's built to go and built to last.

RA VALUES !!



EXTRA
VALUE
FEATURE

NO-CLASH SYNCHROMESH TRANSMISSIONS!

Standard synchromesh transmissions on all trucks eliminate double-clutching and the possibility of troublesome gear clashing when shifting — easier on the driver and truck.



PULL

ONLY GMC

Lightest, roomies

TEAR OUT • SAVE FOR HANDY REFERENCE.

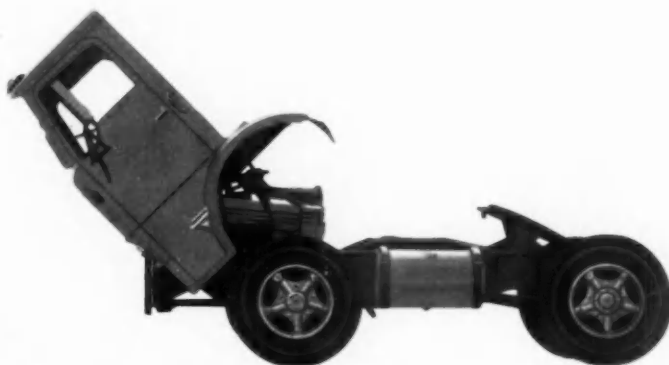


GIVES YOU ALL

est tilt-cabs built!

Now, new GMC Tractors designed specifically for highway hauling without any restrictions dictated by previous or existing models! This flexible DLR8000 "Tilt-Cab Cruiser" will haul maximum length trailers everywhere! Weight-saving construction and ideal weight distribution for the biggest payloads, up to 1,824 more pounds payload than other makes! You get 189 or 210 hp. from the proved 6-71SE engine—the most economical diesel on the road!

For complete detailed information on this new revolutionary GMC, send for the SAE paper "A NEW CONCEPT OF LIGHT WEIGHT HIGHWAY TRACTOR DESIGN", Sales Dept., GMC Truck & Coach Division, Pontiac, Michigan.



DLR8000 61,000 lbs. GCW
Road-ready weight, including 100 gal. fuel, 108" WB—9,987
lbs. total (7,164 lbs. front, 2,823 lbs. rear)
BBC—48 inches
Set-back axle dimension—50 inches





MORE GMC EXTRA VALUES TO SAVE YOU MONEY—MAKE YOU MONEY

GMC chassis and diesel engines are *designed and built to work together* without any revamping or compromising in construction or components. This GMC combination performs better, longer and at lower cost.

One warranty covers *both chassis and engine*. You can get complete parts available and the best diesel service in the U.S. at one place, your GMC Truck Diesel Dealer.



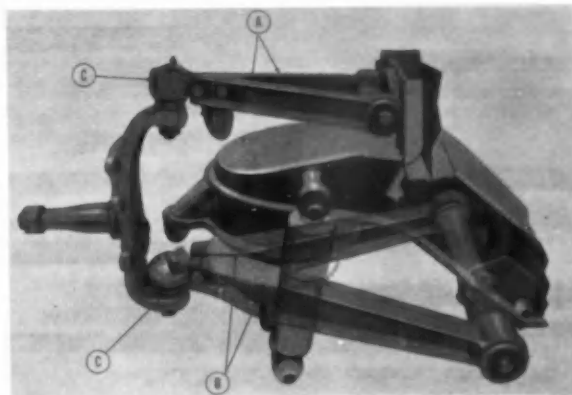
LIGHTEST WEIGHT 90" BBC IN ITS CLASS!

The new D860 is making sales history! This favorite of fleets all over the U.S. hauls up to 1,270 pounds extra payload. Records prove the D860 with the 6-71SE diesel costs the least to operate. "Power-Mated" drive train, roomy cab make driving easier and safer.





Fabricated frame is standard and a GMC "exclusive". It has 30 times the rigidity yet weighs only one-half as much as comparable channel-type frames . . . saves 300 pounds non-profit weight.



Only the DLR8000 has independent front suspension and Stabilized Air Ride, front and rear, making it the easiest-driving, smoothest-riding tractor you can buy. Upper arm (A) and lower arm (B) pivot in rubber bushings at the spread end and are connected to steering knuckles by ball joints (C).



LOWEST-PRICED SIX-WHEELER!

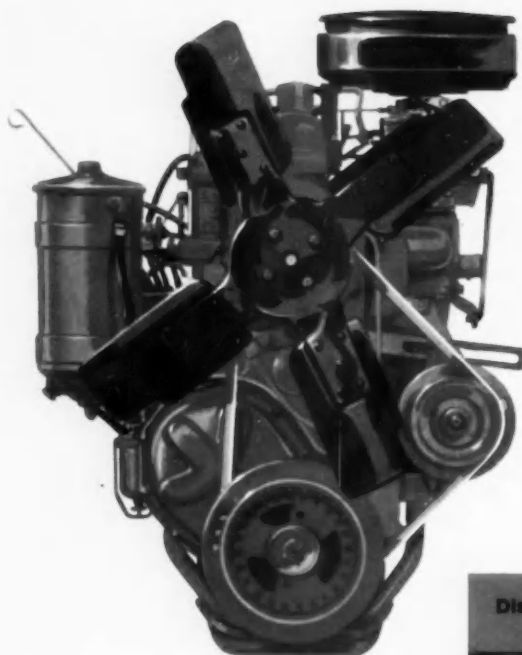
GMC 450 with tandem axle costs up to several hundred dollars less than other six-wheelers in the 35,000 lb. GVW class! In addition, standard equipment include proved, heavy-duty 6-cylinder engine, rugged full-dept' frame and 7,000 lbs. capacity front axle.

L THESE EXTR

All GMC engines have long been famous for their fuel-saving characteristics... famous for their speeds. You get plenty of power for every job without surplus power to

GASOLINE POWERED SIXES

Displacement Cu. in.	Gross Horsepower	Gross Torque
270 A	130	238 @ 1200-2000
270 B	140	246 @ 1400-2000
302	160	268 @ 1600-2200
303	217	455 @ 1000-1600



Each rod is rifle-drilled for positive lubrication of the piston pin. This, combined with GMC's full-pressure design assures better performance, longer engine life.



This GMC engine has the best bearings made... famous Moraine M-400 bearings with 7 times longer life.



Tocco-hardened crankshafts are standard. This costly process creates an extremely hard, long-lasting bearing surface and a medium-hard core for high torsional strength.



Heavy-duty, truck-type aluminum pistons are precision fitted to one quarter-thousandth of an inch—precision weighed to one-eighth of an ounce! You are sure of balanced power from the fan to the flywheel.

These are just a few examples of Extra Value built into GMC engines—features that give you cost-saving, lasting power.

V-8's

Displacement Cu. in.	Gross Horsepower	Gross Torque
336	200	307 @ 2000-2400
370	232	355 @ 2600

GMC V-type engines are made for the owners that want maximum performance in a smaller, shorter power package.

RA VALUES !!

been known for their exclusive

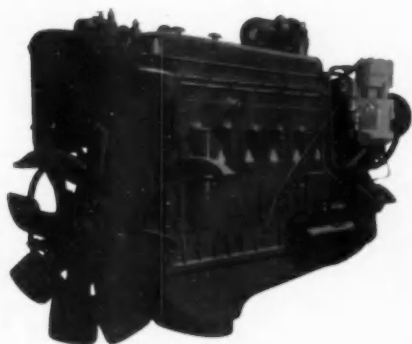
ous for developing usable horsepower and torque at low, practical engine
er that increases operating expense. You get dependable long life, too.

DIESELS

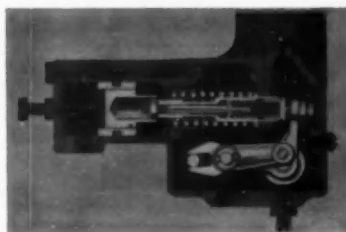
GMC Truck 2-cycle diesel engines give you the *most power per cubic inch, least weight and smallest overall size*—compared to other comparable horsepower diesels.

Displacement Cu. In.	Gross Horsepower	Gross Torque
4-71—283.7	152 @ 2300	374 @ 1500-1600
6-71SE—425.6	189 @ 1800	577 @ 1200
6-71SE—425.6	210 @ 2100	577 @ 1200

NOTE: Also available, increased power 6-71 engines.



GMC's fuel system is the simplest, most practical and durable, and least expensive of all! Injectors meter, time, inject and atomize the fuel—eliminate high-pressure lines and complicated pumps.



Economy Range Governor is a standard GMC Truck "exclusive"! You have two operating ranges—a full-power range for starting loads and hill climbing, and the economy range for the most efficient, fuel-saving engine rpm that's ideal for open highway driving.



Only GMC Trucks have the hydraulically controlled fan! It saves up to 5% fuel and releases up to 7% extra horsepower to the drive wheels. Fan operates only when needed, automatically.



With GMC's 2-cycle design, *every down-stroke* of every piston is a *work stroke* (not every second stroke)! As a result you get faster acceleration, better performance and greater efficiency.

GMC Light-Duty Trucks are

Features shown either cost extra or are



Attractive hood with wind splitters also has reinforcing braces to make it the strongest, most rigid of all. With a GMC, you get a rattle-free, lifetime fit.



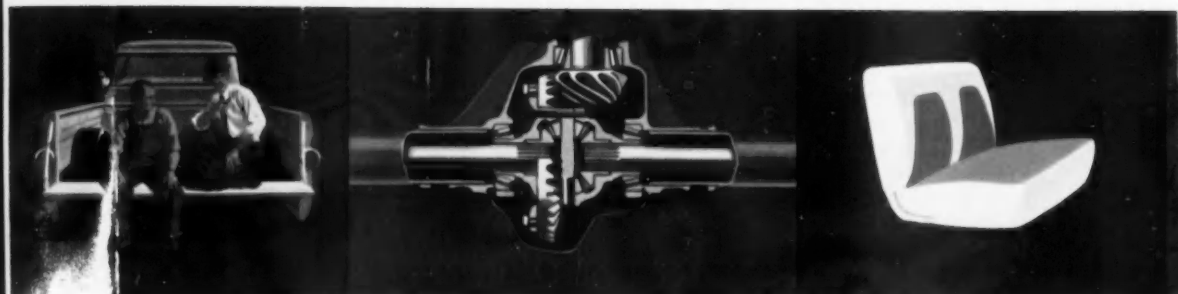
Here is another example of the Extra Value built-in throughout GMC Trucks—the strongest tailgate on any pickup!



Strongest rear axle in any light-duty truck! Exclusive GMC standard fast cruising ratio, too, with all the advantages of overdrive in every gear to save fuel and engine wear.



Form-fitting foam rubber seats are standard equipment in all GMC light-duty models . . . more Extra Value to give you a softer, more comfortable ride.



re truck-built and value-built.
are not available on most other makes.



Wide-Side models have 50% increase in body space to haul bulk-iest loads.



GMC FLEET OPTION PICKUP

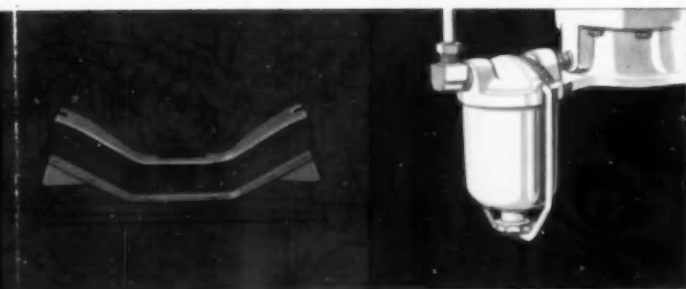
Priced lower than most other makes! No fancy frills or excessive trim, just tough, true-truck features to give lasting performance for the least dollars.



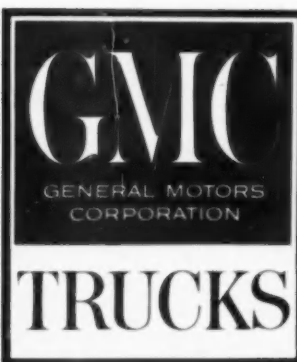
You get the best "feel" of the road and the most stable ride with the sturdiest front cross-member—the same that's used on larger GMC Trucks.



Engine gets clean, non-clogging fuel with GMC's standard fuel filter . . . easier starting and no-stall driving.



From 1/2-ton to 45-ton . . .
General Motors leads the way!



MORE EXTRA VALUE NO EXTRA COST!

Only GMC offers you all these free bonus s

SPECIALIZED TRANSPORTATION ENGINEERING SERVICE.

Competent GMC Truck sales engineers will match the truck to your own job and pocket-book—help you keep operating costs lowest and profits highest.

INVENTORY CONTROL PROGRAM.

You get expert counsel and detailed instructions on how to maintain perpetual inventory records . . . how to order and stock adequate parts at least cost to you.

PREVENTIVE MAINTENANCE SYSTEM.

A workable, proved PM system can be the difference between profit and loss. The GMC method is recognized as the best in the industry. Available at GMC Dealers in your own shop.

SERVICE BULLETINS AND MAINTENANCE MANUALS.

Get complete, current information on everything that's new in service methods and operation.

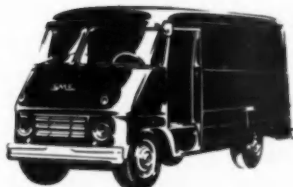
TUITION-FREE MECHANICS COURSES.

Now all your mechanics can be skilled truck specialists, trained by actual experience on "live" equipment in 30 GM Service Centers strategically located throughout the U.S.

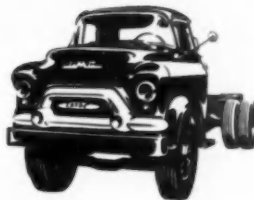
A COMPLETE LINE OF EXTRA VALUE TRUCKS



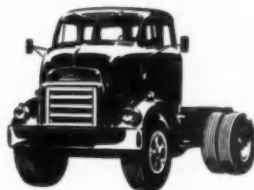
GMC 100 Wide-Side pickup — one of more than 30 different capacity, body and wheelbase combinations.



Both *body and chassis* are offered by GMC on Package Delivery models PM150 and PM250. Powered by a thrifty six-cylinder engine. GVW 7,000—10,000 lbs.



F370 Dual-Purpose Series has an 89-inch BBC. Mounts bodies up to 18 feet and is ideal for medium-duty tractor service to haul practically any trailer.



With up to 76,000 lbs. GCW and 72" BBC, this GMC DF860 is an ideal highway hauler. Powered by the famous 6-71 Super Economy diesel, 189 or 210 hp.



This W670 is the largest gasoline-powered GMC built . . . a proved work-horse for off and on-the-road big jobs. GVW to 63,000 lbs., GCW—90,000 lbs., 503 cu. in. engine produces 217 hp.

TEAR OUT • SAVE FOR HANDY REFERENCE.

HAUL BIGGER PAYLOADS!

50% more capacity in Wide-Side pickups . . . up to 1,824 extra pounds payload with new "Tilt-Cab Cruiser".

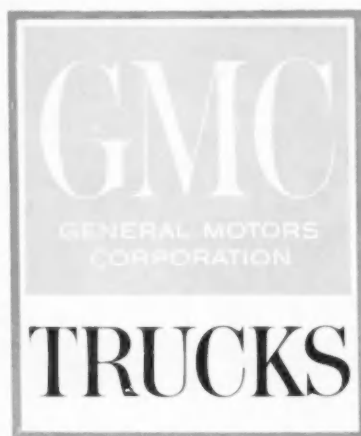
STAY ON THE JOB LONGER!

Strongest rear axle and front crossmember in light-duty models . . . bearings that last 7 times longer . . . standard extra-heavy-duty clutches.

KEEP OPERATING COSTS LOWEST!

Every part is made for the specific truck—plenty of strength without excess weight. Engine and drive train components are "Power-Mated" to each other, to the truck and to the job . . . GMC Truck diesels are the most economical to operate.

GMC Truck & Coach—a General Motors Division.



From ½-ton to 45-ton—General Motors leads the way!

2,000,000 MILE ROAD TEST PROVES **Molysulfide**™ GREASE REDUCES WEAR

—points the way to MORE REVENUE MILES

There have been many enthusiastic reactions to Molysulfide chassis grease by fleet operators. *Here's research proof that their enthusiasm was well placed!*—a 2,000,000-mile road test just completed by a leading automotive research organization, in which Molysulfide grease was tested by comparison with a premium multi-purpose grease.

Since the function of a grease is to *prevent wear* as much as possible, *wear reduction* is the best measure of a grease's effectiveness. Therefore, the entire test was based on wear measurements. And the results:

Molysulfide grease reduced wear from 18% to 88% on bus and truck components. (100% wear reduction would have been no wear at all!) Typical items from the extensive research findings are shown at the right. And the general conclusion? Molysulfide grease reduces parts wear where lubricant film is broken . . . or where shock loading or reciprocating motion wipes off normal grease!

Molysulfide grease means more efficient lubrication because of less wear . . . more time on the road . . . more revenue miles. To cut your "red-line time" — specify MOLYSULFIDE GREASE for your fleet!

MOLYSULFIDE GREASE vs. CONVENTIONAL PREMIUM GREASE

Component	Average Improvement or % less wear
(PASSENGER CARS)	
Steering assembly	38%
Ball joint suspension	26%
Universal joints	30%
(TRUCKS AND BUSES)	
City bus steering ball	88%
Kenworth truck steering ball	18%
City bus steering universal joint	39%
Kenworth truck king pins	57%
International truck king pins	42%
Kenworth truck front drive line universal joint	59%
International truck drive line universal joint	32%
Kenworth truck front spring pin	41%
Kenworth truck rear spring pin	40%
International truck front spring pin	87%
International truck rear spring pin	33%

NOTE: Figures are averages for several parts that make up entire component. Also, they are average results over all such components tested.

ORDER MOLYSULFIDE GREASE BY BRAND FROM THESE MAJOR OIL COMPANIES



Cities Service Oil Company
General Petroleum Co.
Arkansas Fuel Oil Corp.
Grange State Oil Co.
Trojan Moly Grease



Sinclair Refining Company
Litholene Moly Grease



Shell Oil Company
Shell Supreme Multi-Purpose
Grease with Moly T.P.



Phillips Petroleum Company
Phillips A Special



Standard Oil Company (Indiana)
Standard Moly Grease



Secony Mobil Oil Company
General Petroleum Co.
Magnolia Petroleum Co.
Mobilgrease Special (with Moly)



Frontier Refining Company
Frontier Moly-Lith



Gulf Oil Company
Gulf Grease Moly



Standard Oil Company (Kentucky)
Standard Moly HP Lubricant
Mobilgrease Special (with Moly)



Sun Oil Company
Sun Multi-Grade Grease (Moly)
Sun Heavy-Duty Chassis
Lubricant (Moly)

CANADA



The British American
Oil Company Limited
B-A Barium Heavy



Sun Oil Company Limited
Sun Multi-Grade Grease (Moly)
Sun Heavy-Duty Chassis
Lubricant (Moly)



Cities Service
Oil Company Limited
Trojan Moly Grease



Texaco Canada Limited
Molytes



Imperial Oil Limited
Esso HP Grease (Moly)

CLIMAX MOLYBDENUM COMPANY

A Division of American Metal Climax, Inc.
500 Fifth Avenue, New York 36, N. Y.



"They treat you fine
at the
Goodyear Sign!"

—where you'll find the best values in
TRUCK TIRES to meet every need of
Tonnage, Traction and Terrain—from
pickup and panel-truck operations, to
the biggest over-the-road haulers and
earth-movers. All backed by years of
experience . . . all expertly serviced at

GOODYEAR DEALERS'.



RIB HI-MILER
Best buy in
the low-price field

HI-MILER XTRA GRIP
Year-round low-cost
super-traction



SUPER ROAD LUG
Powerful off-the-road
traction PLUS long,
smooth highway mileage

HI-MILER CROSS-RIB
Shatters highway
tread-wear records

Hi-Miler, Road Lug—T. M.'s
The Goodyear Tire & Rubber Company, Akron, Ohio

"From Boston improved almost

All States Freight Inc., Akron, Ohio,

"We have our share of rough territory," says D. W. McClelland, Executive Vice President of All States. "But it's those hot, grinding hauls on fast turnpikes that really chew off rubber."



"Take the 1,000-mile run we make from Boston to Chicago. We used to be glad to get 60 thousand miles from standard tread tires before recapping. Now, with Hi-Miler Cross-Ribs, we're getting over 170,000. Man, that's almost triple!"

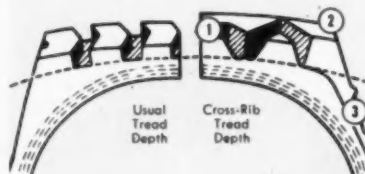
Over All States' 6,835 miles of routes, Cross-Ribs are showing a super-endurance and freedom from trouble. Their economies are helping this fast-moving outfit maintain one of the best operating ratios in the industry.

"The matter of tire cost," points out Mr. McClelland, "is a big item when you run over 18 million miles a year. And if you pay say only 10% more for a tire that delivers about 200% more original miles—well, you're in a real bundle of money! And that's without the extra recaps that Cross-Ribs are built to take."

"Yes, we're riding high on that extra tread. That's why we're so high on Cross-Ribs!"

This story from All States is the same heard from fleets, large and small, in all sections of the country, operating under all conditions. They're summed up in four words: *big savings with Cross-Ribs*. Get the facts from your Goodyear dealer—or write Goodyear, Truck Tire Dept., Akron 16, Ohio.

HI-MILER CROSS-RIB: EXTRA RUBBER plus TRIPLE-TOUGH 3-T NYLON CORD

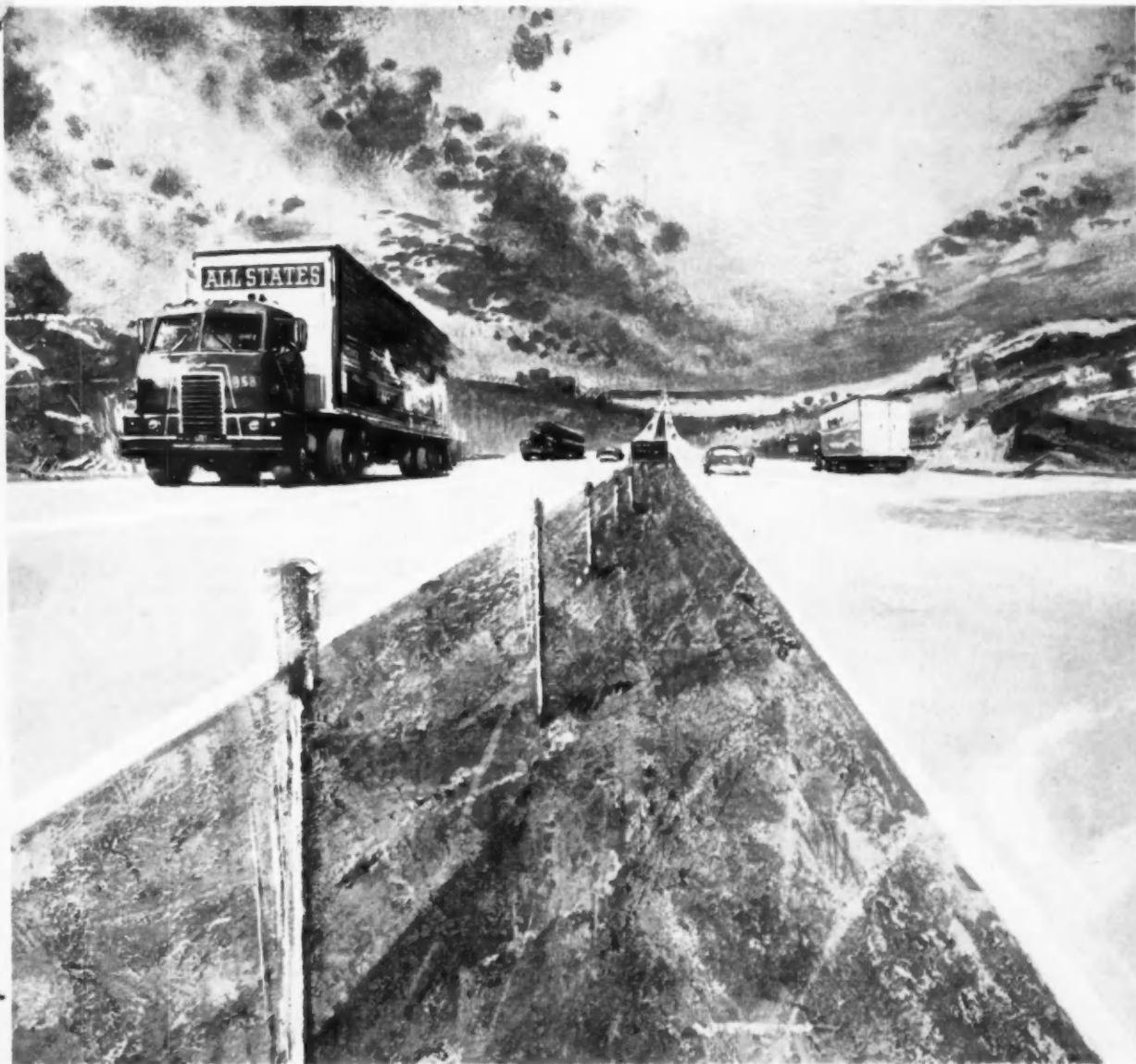


① 60% thicker nonskid tread! ② Cooler-running tread design. ③ Triple-Tough 3-T NYLON Cord. (Goodyear triple-temperes Nylon cord in an exclusive process involving Tension, Temperature and Time, to make it TRIPLE-TOUGH—for longest tire life, most recaps, lowest cost-per-mile!)

TRUCK TIRES by **GO**

to Chicago-tire life 200% on hot turnpike runs!"

finds good news for operating ratios in Hi-Miler Cross-Rib



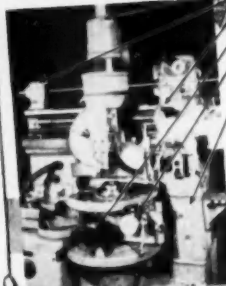
GOODYEAR

More tons are hauled on
Goodyear Truck Tires
than on any other kind

LUBRICATION ENGINEERS ... write for this folder

MEYERCORD Lubri-Cals Marking Lubrication Systems

Take the
Guesswork
Out of Your
Lubrication!



LUBRI-CAL KIT BY MEYERCORD. The work kit consists of the proper frequency of automatic, brush and nozzle, and the necessary for identifying lubrication points and the required lubrication or grease, production and operating instructions.

ILLUSTRATION OF APPLICATION OF LUBRI-CALS TO A MACHINE TOOL. Compression nozzles are placed at points in the lubrication system for the machine, as well as a brush which denotes the lubrication required at this point.

**\$75.00
PER KIT**

Sufficient material in each kit to identify and mark 10 machines.

the MEYERCORD co.

Dept. K-575, 5323 West Lake St., Chicago 44, Illinois

Service ALL Diesel Nozzles ✓ BETTER ✓ FASTER

WITH THIS BACHARACH "Universal" NOZZLE and INJECTOR TEST SET

For CUMMINS
INJECTORS

For BOSCH R, S & T,
Cat., CAV, I.H.,
and similar Nozzles



For
General
Motors
51, 71
and
110
Injectors

Today's most
widely used
nozzle testing
equipment. Factory
approved by
leading engine
and
equipment
builders.

Available as the "Universal Test Set" illustrated or in selective sets comprising the particular components required for testing Cummins Injectors, GM Injectors or Bosch,

etc. Nozzles. Test pump is self-priming, delivers 1200 cu. mm. per stroke, is equipped with 5000 psi gauge, 1.4 pint fuel reservoir, replaceable micron type filter.

Mail Coupon For
FREE
Service Manual

How to
Set up
a Diesel
Fuel System
Maintenance
Shop
BUL. 686

BACHARACH INDUSTRIAL INSTRUMENT COMPANY
200 N. Braddock Ave., Pittsburgh 8, Pa.

- ☐ Send me FREE copy of your Service Manual Bul. 686
☐ Send me Product Bul. 696 on Universal Nozzle Tester

NAME _____

COMPANY _____

STREET _____

CITY & STATE _____

NT-18

TRUCKS



Continued from Page 16

to defects in the separators, cuts caused by buckled or twisted plates, or chafed spots as a result of vibration. The battery container is sometimes a factor in causing battery failure. Poor types of container material may absorb acid, causing electrical leakage between the cells."

Heavy Duty Brake Tolerances

AT A RECENT maintenance session held at Purdue University, J. V. Bassett, Chief Engineer, Raybestos Manhattan, Inc., was asked to discuss tolerance allowed on heavy duty brake components. Here's how he viewed the problem:

"There has been much conversation on this question but not much agreement. My own observations over the years have been at variance with the ideas of many people, therefore, I will give you my own personal opinion for what it may be worth.

"Drum runout, or maximum out of round—0.006 in. The drum should track true and not wobble from side to side. Wobble can cause severe squeal. Shoes should be a good slide fit on the anchor pins or with not over 0.008-in. slop fit. The shoe table must be flat and square with the spider or backing plate, and parallel with the cam ramp and anchor pin.

"Linings should be flat to 0.006-in. concave on the shoe side and not more than a 0.004-in. feeler gage should enter between lining and the shoe except at the center of ends. Return springs should be a minimum of twice the weight of a brake shoe. However, different brake designs require deviations from this rule of thumb for proper brake release action, so the manufacturers specs should be followed with a maximum loss of weight of 10 per cent before discarding."

Cure for Steering Column Squeak

A RECENT Mercury service bulletin tells what to do if a rubber-against-steel squeak is noticed in the steering column on their 1959 models. This sound is caused by metallic particles in the fibre glass insulation (shaft seal) rubbing against the steering shaft when the wheel is turned. Insert the flexible nozzle of a pump-type oil can at the lower end of the steering column applying enough light oil to kill the squeak.

(TURN TO PAGE 40, PLEASE)



John Keller
General
Purchasing
Agent



Bill Adcock
Superintendent
of Motor
Maintenance

Bill Adcock, Supt. of Motor Maintenance
RINGSBY TRUCK LINES, Inc., says:

"Our 'RINGSBY ROCKET'

Averages 10,000 miles before we change oil and

Makes 2 non-stop runs Los Angeles to
Chicago—with superior oil filtration—at
a COST LESS THAN 4¢ PER 100 MILES

Only LUBER-FINER DIESELPAC, with
its *exclusive* specially processed media,
removes oil contaminants *effectively*—FAR
LONGER THAN ANY SUBSTITUTE PACK.

DIESELPAC—designed expressly for
use with H.D. detergent compounded oil—
removes not only injurious suspended
solids, but also colloidal impurities (often
more destructive) *without affecting the
additives.*

Thus LUBER-FINER DIESELPAC

1. COSTS LESS than ineffective substi-
tutes because it gives MORE MILES
of *effective filtration.*
2. Also ADDS THOUSANDS OF MILES to
ENGINE AND OIL LIFE because its
exclusive engineered protection
CLEANS OIL FASTER AND KEEPS IT
CLEAN LONGER.

STANDARD AND OPTIONAL EQUIPMENT—On leading
Diesel Trucks, Tractors and Stationary
Engines.

*A typical statement of many users, engineers,
and original equipment manufacturers on file.

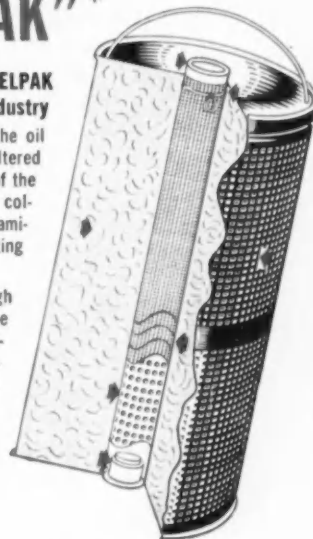
DIESELPAC"*

**VISUAL PROOF why DIESELPAC
is The Standard of the Industry**

Positive end seals prevent the oil
from by-passing. The oil is filtered
through the patented media of the
DIESELPAC which removes col-
loidal particles and other contam-
inants without adversely affecting
the additives.

The oil then passes through
several layers of protective
fibrous material which is sci-
entifically engineered to pos-
itively prevent media from
migrating into the engine.

World renowned engineered
protection is enjoyed only
by the users of the
genuine LUBER-FINER
"DIESELPAC."



Luber-finer

WRITE FOR INFORMATION--how to get MORE MILES
of effective lubrication at LESS COST. Dept. B-6.

LUBER-FINER, INC.

2514 South Grand Avenue, Los Angeles 7, California

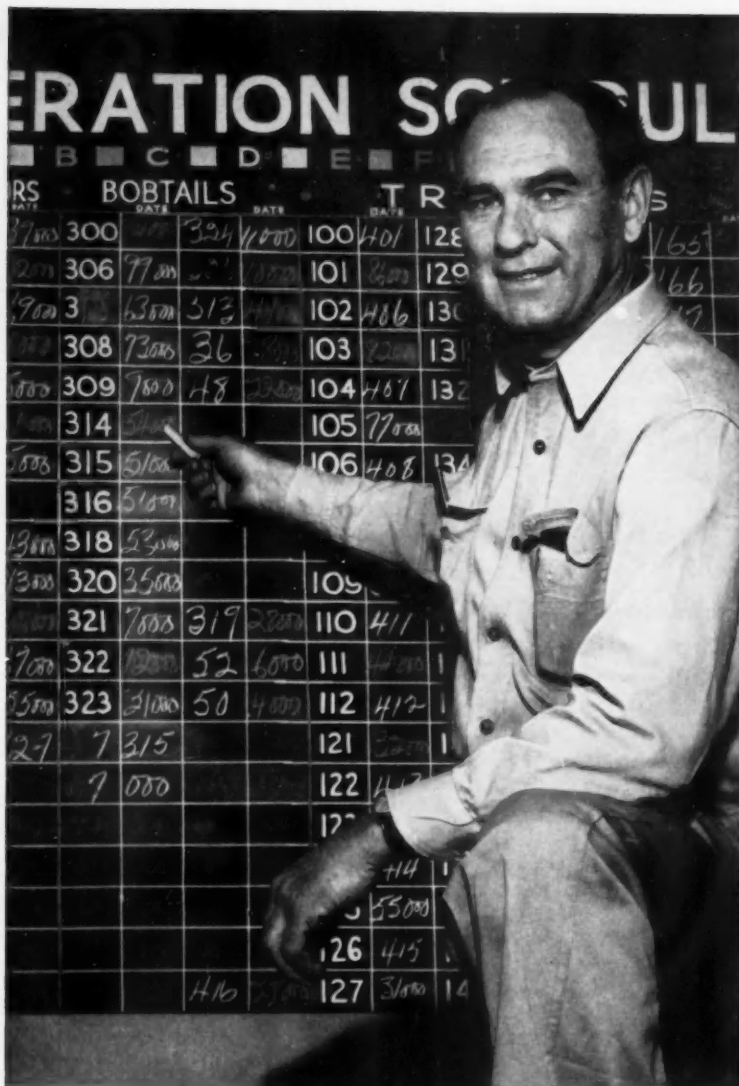
ENGINEER'S FIELD REPORT

PRODUCT RPM DELO Oil

STERLING TRANSIT CO.

FIRM Montebello, California

350,000 miles on RPM DELO before rebuilding



800-mile round trip between Oakland and Los Angeles is regular run for firm's big Kenworths and Internationals. Mr. Schuster makes frequent dipstick checks (above), reports make-up RPM DELO Oil for trip averages only 5 quarts. Older trucks use cleanable filters; newer units, replaceable cartridges. All use RPM DELO Oil exclusively.

Why RPM DELO Oils reduce wear—prolong engine life

- Oil stays on engine parts—hot or cold, running or idle
- Anti-oxidant resists lacquer formation
- Detergent keeps parts clean
- Special compounds prevent corrosion of bearing metals
- Inhibitor resists crankcase foaming.



For More Information or the name of your nearest distributor, write or call any of the companies listed.

Using RPM DELO Oil, Sterling Transit Co.'s 15 diesel tractors run an average of 250,000 miles before overhaul. "In fact, we get 350,000 to 400,000 miles out of them before engines are removed for rebuilding," reports Maintenance Manager Bill Schuster (above). "Regular oil changes are an important part of our preventive maintenance program. This color-coded chart indicates the mileage and condition of any unit in our 82-truck fleet...and these records show that RPM DELO Oil is doing a good job."

TRADEMARKS "RPM DELO" AND CHEVRON DESIGN REG. U.S. PAT. OFF.

STANDARD OIL COMPANY OF CALIFORNIA, San Francisco 20
THE CALIFORNIA OIL COMPANY, Perth Amboy, New Jersey

STANDARD OIL COMPANY OF TEXAS, El Paso
THE CALIFORNIA COMPANY, Denver 1, Colorado





Productivity and profits up with BOSTROM seats

Undoubtedly your labor costs are near the national average of 54.2% of your gross operating dollar. At least, labor requires the biggest chunk.

What can you do about this expense? If you cannot cut, can you get more out of it? The answer is yes. Simply increase driver *productivity*. Thus you cut costs . . . and *increase profits*.

How? By "human engineering"—making the driver's job easier, more efficient . . . keeping drivers on the road more steadily, with fewer or shorter stops . . . holding to schedules . . . decreasing hazards and costs of delays or accidents . . . giving drivers more respect for their jobs and equipment, with less equipment abuse as a result.

These are the benefits of Bostrom "Level-Ride" 80 seats—the "human-engineered" suspension seat that removes wear and tear on the driver, making him more efficient and productive. "Level-Ride" 80 seats take away 80% of the road shocks and vibration, providing a 5-times-better ride. Giant rubber torsion springs in the seat suspension system soak up shock *under* the seat instead of *in* the driver's body. Over 135,000 Bostrom suspension seats in use prove their value.

You can obtain "Level-Ride" 80 seats on every make of new truck. There's a "Level-Ride" 80 also available to fit your present trucks—for replacement now. See your truck dealer or Bostrom parts jobber.

Want a demonstration?
Write and we'll arrange one for you.

BOSTROM®

BOSTROM CORPORATION
133 West Oregon Street, Milwaukee 4, Wisconsin



Are You Wasting Full Wages on **HALF-A- MECHANIC?**

You ARE if costly mechanics' time is being wasted on cleaning parts with "cleaning equipment" that is really little more than a glorified bucket . . . the kind that requires time-consuming, profit-eating scrubbing to get the parts clean.

Doesn't it make more sense to use a cleaning machine that does the cleaning AUTOMATICALLY — allowing your mechanics to spend full time on profitable repair work?

With the Magnus Miji-Lif, your mechanic places the dirty parts (up to 100 lbs.) in the machine, flips a lever and goes back to his job. The automatic agitation of the Miji-Lif takes over, shearing the dirt from the parts more completely and **without lost time.**

Operated by compressed air, the Miji-Lif has no pumps, gears, motors or electrical gadgets to break down. And, you'll quickly save the low cost of the machine through more profitable use of your mechanics' time.

**YOU OWE IT TO YOURSELF TO GET
THE FULL FACTS NOW ON THE MAGNUS
MIJI-LIF AGITATING CLEANING MACHINE**

**JUST LOAD DIRTY PARTS —
UNLOAD CLEAN ONES!**



MAGNUS CHEMICAL CO., INC.
38 South Avenue, Garwood, N. J.

PLEASE RUSH FULL DATA AND SPECIFICATIONS
ON YOUR NEW MIJI-LIF.

Name _____
Company _____
Position _____
Address _____
City _____ State _____



magnus
CHEMICAL COMPANY, INC.

AUTOMOTIVE CLEANING & MAINTENANCE

FOR YOUR PROTECTION, MAGNUS PRODUCTS ARE AVAILABLE ONLY FROM
OUR OWN EXPERIENCED AUTOMOTIVE SALES-SERVICE REPRESENTATIVES.

TRUCKS



Continued from Page 36

Save the Parking Brake

"ONE THING THAT is leading to early failure of drums in many of our present heavy duty trucks is that the parking brake is attached to one or more of the rear axle service brakes," said Bert Ogden, vice president, Consolidated Freightways, at a recent Purdue University maintenance session. As he sees it, here's why.

"Most of these parking brakes are ineffective due to lack of leverage in the lever itself unless the service brake air is used as an assister. Many times the drums are hot when the parking brakes are set. When the driver goes in to eat or have a cup of coffee, the drum starts to cool. Obviously with the parking brake set and being held in applied position by either cables or rods, when the drum cools there is no chance of the brake shoes contracting even though the drum must. The ultimate result is a cracked drum caused by setting the parking brake while the brake drums are hot."

(TURN TO PAGE 44, PLEASE)



"This one checks on th' compression, this one th' voltage, this one th' gas consumption. This ones th' shop foreman checkin' on me!"

*A question
(and answer)
from Raybestos . . .*

BRAKE DRUM REPLACEMENT COSTS PLAGUING YOU?

INFERIOR BRAKE BLOCKS MAY WELL BE THE CULPRIT!

As you know, boosting profits depends largely on cutting costs. One good way to do both is to make certain when you buy brake blocks that you get the kind which will not only resist fade and wear well, but also not damage brake drums.

Raybestos Brake Blocks—custom tailored in the right combinations and thoroughly proving ground tested—sharply reduce heat checking and scored drums, and thus eliminate unnecessary, and mighty expensive, brake drum replacement. Regardless of your operation—local stop-and-go, intercity service, hauling over mountains—you'll want to insist on Raybestos Brake Blocks.

And keep in mind, too, the other fine Raybestos products that can mean so much to the profitable operation of your fleet . . .

RELINE WITH
Raybestos
AMERICA'S BIGGEST SELLING FRICTION MATERIAL



RAYBESTOS DIVISION of Raybestos-Manhattan, Inc., BRIDGEPORT, CONN.
RAYBESTOS-MANHATTAN, INC., Brake Linings • Brake Blocks • Brake Fluid • Clutch Facings • Industrial Rubber
Mechanical Packings • Asbestos Textiles • Engineered Plastics • Sintered Metal Products • Rubber Covered Equip-
ment • Laundry Pads and Covers • Abrasive and Diamond Wheels • Industrial Adhesives • Bowling Balls



Woven Molded
Brake Blocks



Raylok and Ray-Met
Clutch Facings



PGT Heavy Duty
Truck Sets



V-Drive and Automatic
Transmission Plates



Heavy Duty
Brake Fluid

LIPE Clutches Cut Truck Operating Costs

say increasing numbers of big users...

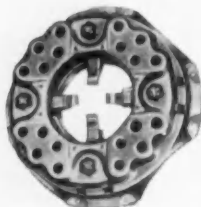


It's what the clutch does on the road that sells experienced truck users. Their only measuring stick is overall costs. In important and increasing numbers, that measure is causing them to buy Lipe Heavy-Duty DPB's

... both on new trucks and as replacements of original equipment.

For more engagements per mile ... for more miles between maintenance stops...for more ton-miles per year...

the trend is to LIPE!



Lipe Heavy-Duty DPB Clutches are available in single and two-plate types; 12", 13", 14" and 15" sizes; with torque capacities from 300 to 1900 ft.-lbs.



**FOR LONGER SERVICE
UNDER HIGH SPEEDS AND HEAVY LOADS**



FOR TRUCKS, BUSES, TRACTORS and CARS

**McQUAY-
NORRIS**



- ✓ **OVERPLATED SINTERED COPPER ALLOY BEARINGS**
- ✓ **OVERPLATED ALUMINUM ALLOY BEARINGS**

McQUAY-NORRIS MANUFACTURING CO. • ST. LOUIS • TORONTO

PASSENGER CARS



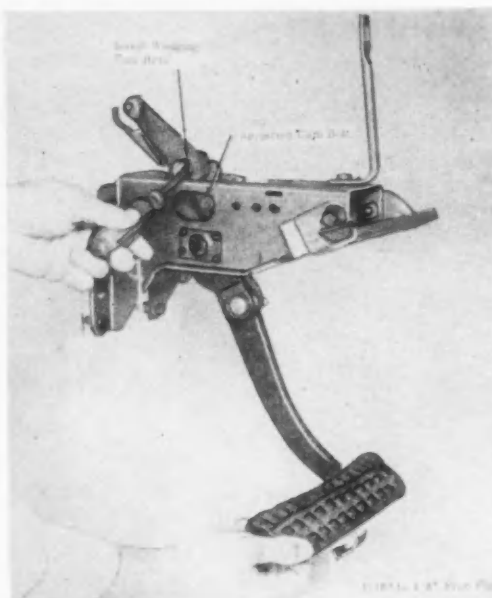
Continued from Page 40

Plymouth Brake Pedal Adjustment

PLYMOUTH SENDS a tip on power brake pedal adjustment. Two main adjustments are required—trigger arm and pedal free play. Both must be correct to insure proper power brake performance and prevent the possibility of brake shoe drag.

The free pedal play adjustment check should be made at *no vacuum* (engine not running). First pump the pedal a few times to relieve all vacuum. Next insert a screw driver between trigger pivot and rear side of hole in power lever, forcing brake pedal and power lever apart (see illustration). With linkage set in this position check free play. Plymouth recommends 1/16 to 3/8-in. free travel. Adjust master cylinder push rod to get proper clearance. If trigger pivot and power brake lever are not wedged apart, a false setting will be measured at the pad end of the pedal.

Trigger adjustment determines how soon the power assist goes into action. That is, to assure



maximum performance of the booster. A slight turn of the adjusting cam in a clockwise direction will speed up a slow pedal return. In a counter-clockwise direction, it will eliminate a time delay during fast application. The arrow on the cam should point upwards to at least 90 deg of the pedal centerline.

HAVING SAFETY LAMP PROBLEMS ?

TRY WARREN *Snap Seal* CLEARANCE LAMP

S-200



O-RING SEAL

HEIGHT UNDER 1"
WIDTH 2"

ONE OF 24 TROUBLE FREE "O" RING SEALED SAFETY LAMPS.

- ✓ LENS PRIES OFF — SNAPS IN, BUBBLE-TIGHT.
- ✓ RUGGED 3 C.P. (63 OR 67) BULB — GROMMET SUPPORTED.
- ✓ LONG LIFE — MINIMUM MAINTENANCE.

BETTS MACHINE COMPANY

WARREN, PENNSYLVANIA



SQUEEZE THOSE VALVE SPRINGS WITH 'NONSIP'

VALVE SPRING INSERTS (V.S.I.)



FOR SPRINGS IN SERVICE

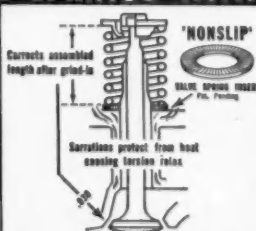


FOR NEW SPRINGS

Restores Spring Pressure

Valve Spring Inserts or Spacers are recommended or sold by leading car and truck mfr's.

WRITE TODAY FOR MORE INFORMATION AND FREE DECIMAL CHART TO:

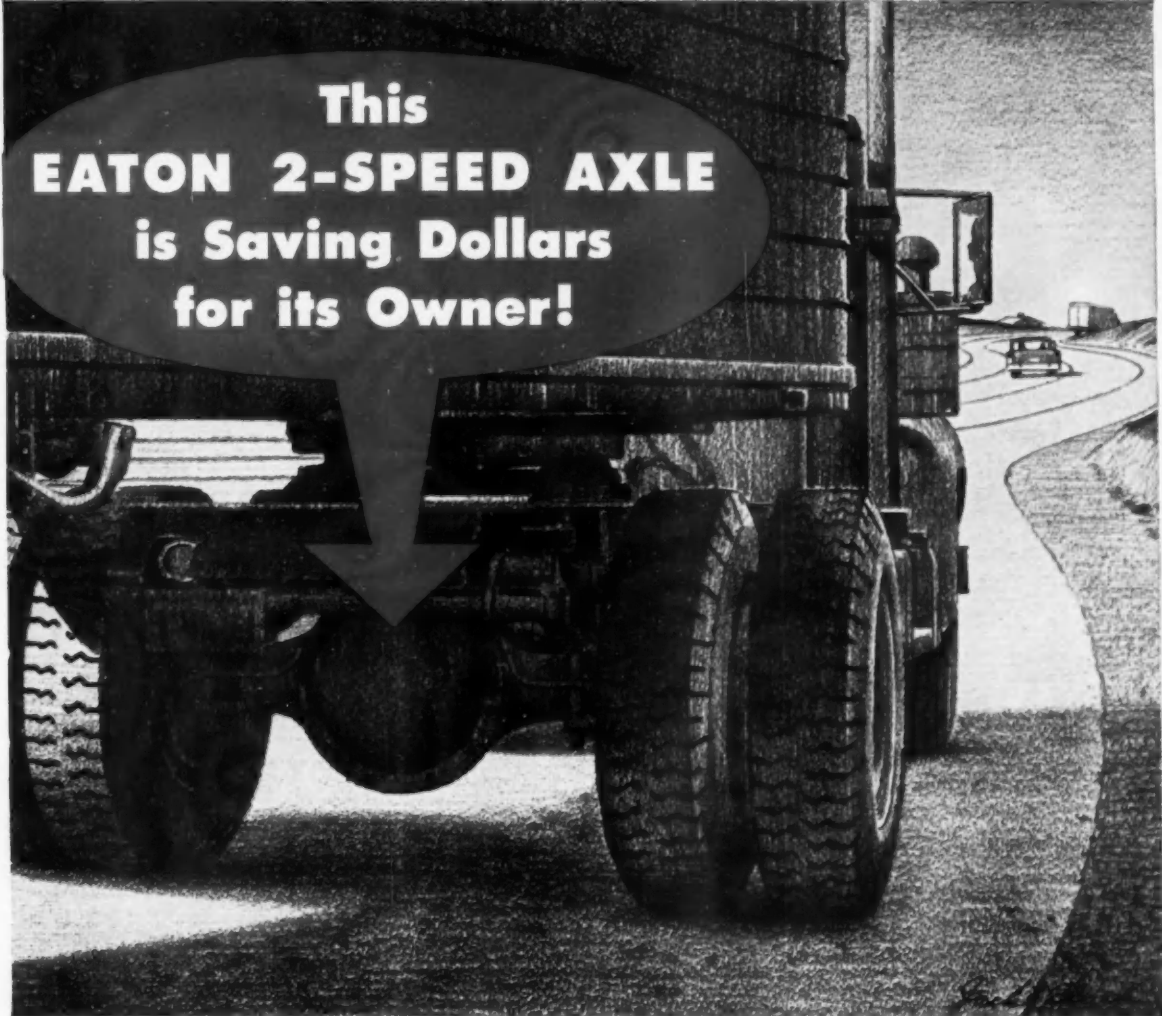


SILVER SEAL PRODUCTS CO.
LINCOLN PARK-MICHIGAN

THE BIG BUY IN AIR WRENCHES

Test the SIOUX Air Impact Wrench against any other before you buy. In each price range SIOUX delivers more torque per dollar—up to 25% more, while consuming 30% less air! Call your nearest SIOUX distributor for a demonstration!

ALBERTSON & CO., INC. • SIOUX CITY, IOWA, U.S.A.



**This
EATON 2-SPEED AXLE
is Saving Dollars
for its Owner!**

Truck operators derive many worthwhile benefits through the use of Eaton 2-Speed Axles—ability to pull out under full load, quicker trips, safer operation, reduced driver fatigue, longer truck life, greater trade-in value.

But a big reason why more and more truckers in all fields of heavy duty hauling are specifying Eaton 2-Speed Axles is that this equipment effects important reductions in operating and maintenance costs—which is another way of saying: they add to profits!

Ask your truck dealer to show you how Eaton 2-Speed Axles can make big savings in your hauling operation.



More than Two Million
Eaton Axles in Trucks Today.

EATON

**AXLE DIVISION
MANUFACTURING COMPANY
CLEVELAND, OHIO**

PRODUCTS: Engine Valves • Tappets • Hydraulic Valve Lifters • Valve Seat Inserts • Gears • Hydraulic Pumps
Truck and Trailer Axles • Truck Transmissions • Permanent Mold Iron Castings • Automotive Heaters and Air Conditioners
Fastening Devices • Cold Drawn Steel • Stampings • Forgings • Leaf and Coil Springs • Dynamatic Drives and Brakes
Powdered Metal Parts • Variable Speed Drives • Speed Reducers • Differentials • Centralized Lubrication Systems



Here are 10 of Continental's ASF-equipped trucks.
Note the simplicity of mounting mentioned by Mr. Ogden.

"80¢ per 200,000 miles*... That's Continental's upkeep cost* on ASF 5th Wheels!"

"And we like their SAFETY... when we lock them, we know they'll stay locked. Not one has failed in approximately 15 million miles!

"We like these wheels for many reasons," says Fred Ogden, Superintendent of Maintenance. "For one thing... little or no maintenance. Every 200,000 miles, we add a shim to take up play. It costs us 80¢, not counting labor, and that's about the extent of our ASF maintenance costs.

"We like the mounting simplicity of ASF wheels, too. No special mounting plates... just bolt the

broad base brackets to angle irons bolted directly onto the frame and that's it! We've never had one go wrong in all the mileage our trucks have logged with ASF 5th Wheels."

Continental started six years ago with only five ASF 5th Wheels. Those five gave such a good account of themselves that, inside of three years, a large percentage of Continental's fleet was ASF equipped. And so it has gone, in fleet after fleet... the safety, service, savings and stamina of ASF 5th Wheels make them their own best salesmen.



Mr. Fred Ogden, Superintendent of Maintenance for Continental Transportation Lines, says: "Most of our trucks are equipped with ASF 5th Wheels because actual on-the-road test sold us 100%! We will continue to install ASF Wheels on all new tractors and for replacement on older tractors that are not now ASF equipped."

*Make an investment in safety . . .
with*



safety 5th wheels

A product of American Steel Foundries, Hammond, Indiana

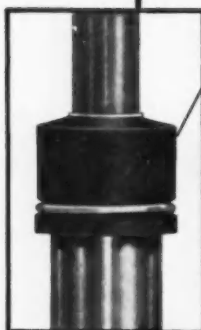
Only Perfect Circle gives you 2-WAY POWER PROTECTION!

1. Perfect Circle Valve Seals

solve problem of excessive oil consumption past valves!

New rings and restored valve efficiency produce higher compression pressures—and higher deceleration vacuum. Increased vacuum draws oil through loose and worn valve guides. Stop this loss with *new* Perfect Circle Valve Seals!

Insure satisfactory performance—
Install Perfect Circle Valve Seals on all re-ring jobs and all overhauls.

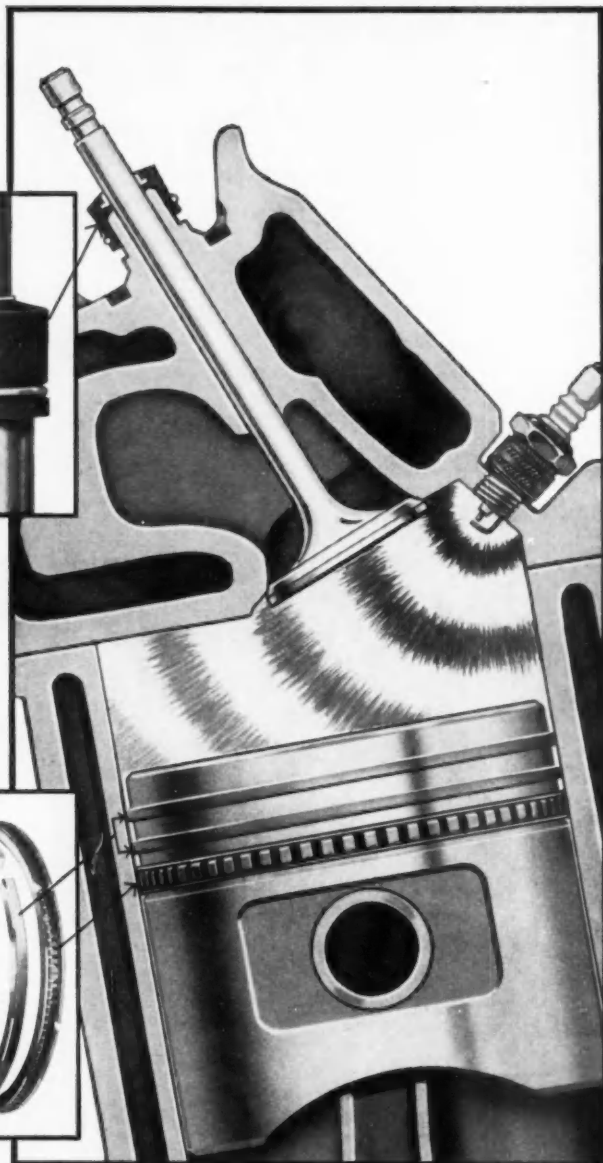
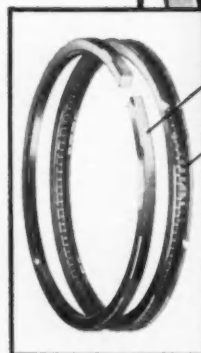


2. Perfect Circle 2-in-1 Chrome Sets

solve problem of excessive oil consumption past pistons!

2-in-1 Chrome sets provide the finest piston rings obtainable! Top rings and oil rings are plated with thick, solid chrome. Doubles life of cylinders, rings, pistons. No tedious break-in is necessary, rings are pre-seated at factory.

Insure satisfactory performance—
Install 2-in-1 Chrome sets for thousands of extra miles of power protection and positive oil control!



PERFECT



CIRCLE

PISTON RINGS AND

POWER SERVICE PRODUCTS

Hagerstown, Indiana

Don Mills, Ontario, Canada



JUNE 1959 FLEET HIGHLIGHTS as reported by COMMERCIAL CAR JOURNAL

ICC Proposes Extensive Changes in "Hours of Service" Rules

Interstate Commerce Commission proposes almost a complete rewrite of the "Hours of Service" portion of its Safety Regs. All interstate drivers are affected. As a special service to fleet operators, the proposals (Secs. 195.1 through 195.8) are published in full in this issue, beginning on page 186. Biggest change asked for concerns "on duty" time. Driver could not drive more than 10 hours or be "on duty" more than 12 following his last eight consecutive hours "off duty." Within this new daily limit to "on duty" time, he could not drive more than 375 miles. As of late last month, the Commission had scheduled no hearings on the proposals . . . nor had it set the date when they would go into effect.

More Taxes, Borrowing or "Stretch-Out" Face Highway Program

Watch Congress this month. It has to decide how to solve the present money shortage in the Interstate highway building program. Problem is basically this: For the next two fiscal years, Highway Trust Fund receipts won't equal cost of building highways as called for in the 1956 Highway Act. Also says the law, you can't borrow against future receipts to make-up the deficit. So three choices are obvious—boost highway use taxes, change the law so you can borrow, or build only the highways possible with the income expected. Here's the end-of-May box score on these alternatives . . .

Administration Continues to Ask for Increased Taxes

Both Undersecretary of Commerce for Transportation John J. Allen, Jr., and Federal Highway Administrator Bertram D. Tallamy have appeared before the House Public Works Committee in favor of increasing the federal fuel tax by 1½¢ a gal. In a special message to Congress and in a subsequent press conference, President Eisenhower (1) opposed "stretch-out" of the building program, (2) opposed borrowing funds, and (3) again endorsed a "pay-as-you-go" tax increase. Says American Road Builders Assn., "Strong language used by the President was interpreted in some Congressional circles as an implied threat that any solution other than the Administration solution would be vetoed."

Congress Agrees There Should Be No "Stretch-Out," But . . .

Congress seems to agree that there should be no "stretch-out" of the highway building program. Its Public Works Committee has reported-out favorably HR5950. This calls for a \$2½ billion authorization for the fiscal year 1962 and directs the Secretary of Commerce to make full apportionments for 1961 and 1962 without regard for the "no borrowing" provision of the 1956 Highway Act. When it comes to footing the bill, "borrowing" seems to find more favor than a tax increase. In the Senate, S1826 (still in committee) suspends the "no borrowing" clause, provides for "repayable advances" from general revenues to the Highway Trust Fund. This approach has American Trucking Assns.' endorsement. Its position is that the "highway program can be kept on schedule without further increases in highway users taxes . . . through use of repayable advances, loans or issuance of revenue bonds secured by trust fund receipts."

DETROIT DISPATCH

DIESEL NEWS THIS month includes details on Dodge's first one (see page 116, this issue), a report that Cummins will have a V-8 model this fall, and announcement by Ford that it will have four diesel trucks under test by the end of July. Pacific Intermountain Express, Spector-Mid-States, Great Southern and Middle Atlantic Freight Lines will each be using one.

ENGINE DIAGNOSIS USING an "electronic brain" is being looked into by the Army's Frankford Arsenal in Philadelphia. First step will be to feed standards into the "brain." Then by attaching pick-ups to the engine to be checked, the brain would "read" condition of the various components. It would then automatically compare the findings with the "memorized" norms, print a report showing what needs attention.

V-6 GASOLINE ENGINE IS almost ready for announcement by GMC. It's about a foot shorter than present V-8 truck engines. Application will be in commercial vehicles with word from Detroit that adoption to passenger cars is "highly remote."

DIESEL MECHANICS NOW have available two home study courses . . . Maintenance and Repair of Cummins Engines and Cummins Engine Unit Rebuilding. They were developed in cooperation with Cummins by Interstate Training Service, 4035 N.E. Sandy Blvd., Portland 12, Ore. Mechanics completing both courses are eligible for a week's tuition-free training at Cummins' Factory Training Center in Columbus, Ind.

NYLON CORD TIRES DID better than rayon in a recent Charleston, W. Va., taxicab fleet test, reports nylon-maker DuPont. Tires compared were original equipment rayon and "second line" nylon (list price 13 per cent below the rayon) of the same brand name. DuPont reports up to four recaps on the 40 rayon tires checked, a total of 1,460,000 miles. At the close of the test, 17 of the 39 nylon tires were still in service, they had run-up 2,100,000 miles, had been recapped up to six times.

NEW NYLON TIRE CORD IS announced by Allied Chemical Corp. It's been 10 years in development, first

WASHINGTON WATCH

ILLINOIS' "CONTOUR mud guard" law is unconstitutional. It unduly burdens interstate commerce said the U. S. Supreme Court last month. (Coming next month: More details on the Court's reasoning in this case.)

IRREGULAR ROUTE Common Carrier Conference of ATA "applauds" ICC's investigation into common carrier operating rights (April, page 33; May, page 34). Conference calls the move, "the first step in dispelling the confusion between the two types . . . of authority . . ."

"NO SALE." SAID New York City's Mayor Wagner last month to (Washington) D. C. Transit System Operator O. Roy Chalk's proposal to buy the New York City Transit System (May, page 33).

INCREASED HIGHWAY COSTS SHOULD be borne both by highway users and by those "deriving demon-

strable and direct benefits from such highways," says new policy of U. S. Chamber of Commerce. Previous position was that need for more money should be met by increased user taxes alone.

HERTZ CORP. HAS been socked with an antitrust complaint. Dept. of Justice says its recent acquisitions tend to lessen competition and create a monopoly in the vehicle leasing and renting industry.

OWNER-OPERATOR CANNOT lease his rig to a shipper and drive it himself unless he has contract carrier authority, says the ICC (Docket MC-C 2146).

WATCH TAX DEDUCTIONS on payments for leasing of vehicles. They're deductible if they are ordinary and necessary expenses directly attributable to operation of your business. But, says Internal Revenue Service, they're

went to tire makers for testing in 1954. Allied says it has greater heat stability (less "growth" and "thump") plus high resistance to flexing fatigue.

AIR BRAKE HOSE NOW comes marked "40R2" if it meets Society of Automotive Engineers' standards. Move was requested by ATA's Regular Common Carrier Conference, Truck-Trailer Manufacturers Assn. and Automobile Manufacturers Assn. There'll also be an "A" or a "B." Either meet the SAE specs, but one has smaller inside diameter and more plies.

SMALL CARS NOW have names. Watch for the Ford Falcon, the Chevrolet Corvair and the Plymouth Valiant. Valiant's 170-cu in., 6-cyl overhead valve engine will have a 230-cu in. big brother. Larger version will go into Dodge and Plymouth for 1960 . . . mounted at a 30-deg angle to fit new body and frame construction.

TWO MILESTONES WERE passed recently. Ford on April 29 produced its 50 millionth vehicle. GMC last month turned-out its millionth 270-cu in., 6-cyl truck engine.

not deductible to the extent they represent personal use by the taxpayer—for example, to or from his place of business, vacation trips. Nor are they deductible if they, in fact, constitute payments for purchase of vehicles. Deductions for advance rental payments must be apportioned over the entire rental period.

TIRE ACCOUNTING giving you trouble with the Internal Revenue Service? ATA's National Accounting and Finance Council says some fleets are facing IRS claims because they write-off original equipment tires as an expense instead of including them as part of value of new vehicle as an asset. Council would like to know about such cases.

MACK AGAIN this summer, in cooperation with the ATA Foundation, will use NBC's week-end radio program "Monitor" to tell the public about the trucking industry.

TRUCK TONNAGE

MARCH INTERCITY truck tonnage zoomed to 25 per cent above March a year ago to close '59's first quarter well ahead of last year. Also, notes ATA's Research Dept., it was 13.2 per cent ahead of February this year. Every region showed a sizeable gain for the month as compared to March '58 with the heavy tonnage Central region leading the way with a 31.3 per cent boost. Second high was the Southern region—up 27.1 per cent. Third place goes to the Mid-

western region with a 25.4 per cent increase—followed closely by Middle Atlantic's 24.5 per cent boost. Increases tallied in other regions are Southwestern—21.8 per cent, Northwestern—19.6, New England—19.0, Rocky Mountain—16.6, Pacific—12.4.

Month	% Change from Previous Month	% Change from a Year Ago
March, 1959	+13.2	+25.0
February, 1959	+2.2	+17.6
January, 1959	+2.7	+11.7
Full Year, 1958	...	+1.1
4th Quarter '58	...	+6.2
December, 1958	+3.3	+17.4
November, 1958	+16.1	+0.8
October	+11.3	+3.2
3rd Quarter '58	...	+2.1
September, 1958	...	+2.3
August, 1958	+0.4	+6.8
July, 1958	+2.4	+0.3
2nd Quarter '58	...	+2.6
June, 1958	+3.2	+5.3
May, 1958	+2.6	+5.8
April, 1958	+1.9	+5.4
1st Quarter '58	...	+5.6

TRUCK AND BUS PRODUCTION

Make	Weeks Ending		Year to Date	
	May 16	May 9	1959	1958
Chevrolet	8,753	8,922	158,533	114,986
G. M. C.	1,926	1,903	35,144	24,670
Diamond T	154	121	2,559	2,117
Divco	80	80	1,444	1,164
Dodge and Fargo	1,480	1,616	33,384	22,031
Ford	7,800	7,767	130,817	88,680
F. W. D.	23	25	380	565
International	3,216	3,300	54,765	40,048
Mack	401	341	8,731	5,884
Studebaker	125	121	5,480	4,330
White	414	452	7,453	7,043
Willys	2,463	2,769	45,534	31,118
Other Trucks	65	65	1,253	1,206
Total—Trucks	26,902	27,482	483,457	343,832
Buses	90	75	1,036	1,440
Total—Trucks and Buses	26,992	27,557	484,493	345,272

Source: Automobile Manufacturers Association.

IN THIS ISSUE

... **COST CONTROL** through **DATA PROCESSING** gets emphasis. A special 14-page report begins on page 100.

... **SAFETY** is well represented. Here's how **DAN DUGAN** wins a mountain of safety trophies, page 124. How to **GO, GO, GO** with your **OWN ROADEO**, page 138. Plus the full text of the ICC's proposed new wording for its **HOURS OF SERVICE** regs, page 186.

... **CONTAINERS**, their advantages, their multiple uses and their construction are rounded-up, page 128.



A QUICK LOOK AT WHAT'S COMING TO HELP WITH YOUR ADVANCE FLEET PLANNING

PIGGY-BACK TRAFFIC IS growing fast. In 1958, says American Assn. of Railroads, rails carried 420,000 trailers with 276,767 flatcar loadings. This was 11 per cent above 1957 . . . despite a 15 per cent drop in total rail carloadings. Up to the end of March this year, AAR says the increase over '58 has been a sizeable 56.5 per cent—about 8000 piggy-back car loadings a week. Presently this is only about one per cent of total rail traffic, but the Association's prediction is that someday half of all rail freight will be piggy-backed in trailers or containers. (For more container facts, see page 128, this issue.)

\$1000 ANNUAL AWARD TO the "nation's outstanding safety director of a trucking fleet" was announced at last month's ATA Council of Safety Supervisors meeting in Oklahoma City, Okla. Fringe benefits include (1) a special ring, (2) free trip to the ATA Annual Convention where the award will be made, (3) free trip to the following year's Council meeting. Picking-up the tab for the entire program is Transport Insurance Co., Dallas, Texas. (For more details on this year's meeting, see page 144, this issue.)

BOTH ATA'S PRIVATE Carrier Conference and Private Truck Council of America have alerted members to the possibility of visits by safety teams from the Interstate Commerce Commission. Such teams spend one or two days at a fleet's headquarters, check driver logs, time cards, accident records, maintenance reports, driver files and handling of dangerous articles and explosives. Don't let 'em get too nosey warns PTC, "It is the position of your Council that the right of authorized ICC personnel to inspect . . . private truck operators is limited to . . . safety of operation of vehicles in interstate commerce."

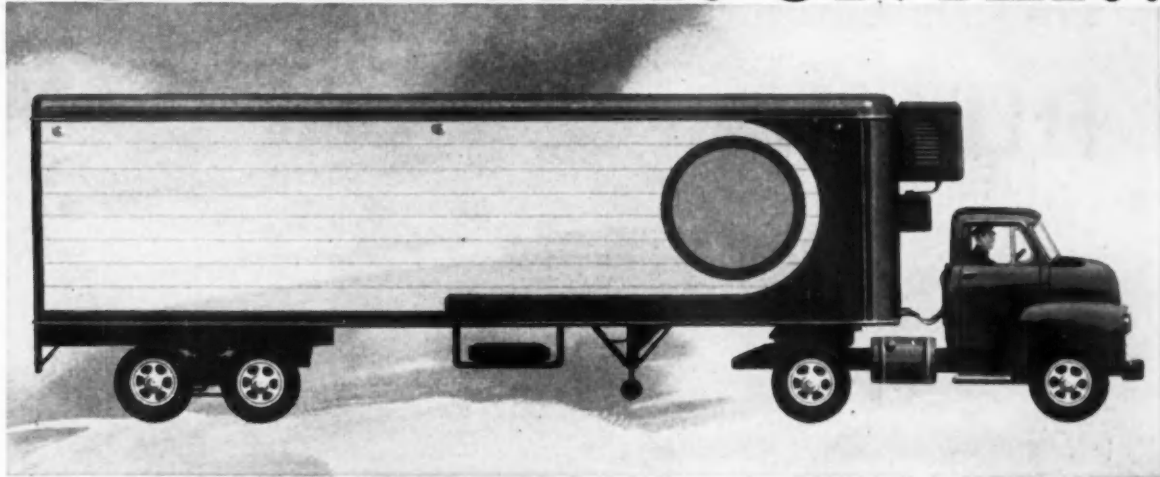
LET'S CUT ACCIDENTS, say 342 casualty insurance companies. They're setting-up an institute—headquarters will be in Washington, D. C.—to handle a million-dollar-a-year program to stop traffic accidents. The companies say they are losing \$300 million a year because of the high accident rate. Institute has no name as yet, but its chairman is Guy E. Mann of Aetna Casualty and Surety Co.

PRODUCTION DATA FOR first quarter of this year as shown below reflect marked increases over the first three months of 1958. New truck registrations are about a week ahead of last year, truck and trailer sales and shipments are running about a month and a half ahead, replacement tires about two weeks.

In thousands of units, except bus sales are in actual numbers	New Truck Registrations		Truck Factory Sales—Domestic		Truck Trailer Shipments		Bus Factory Sales—Domestic		Truck and Bus Tires					
									Replacement Shipments		Original Equip. Shipments		Inventory End of March	
	March	3 Months	March	3 Months	March	3 Months	March	3 Months	March	3 Months				
1959	77.6	204.1	93.1	286.4	6.2	16.5	200	453	842.5	2235.8	405.9	1086.6	3680.5	
1958	55.0	157.0	57.6	175.7	3.7	10.6	313	901	607.8	1879.0	269.2	799.9	3659.3	

Now!
more payload room
for profit
when
you

PUT THE PAIR ON AIR!



Profits get new payload room to grow in with AIRIDE airsprings by Firestone for truck tractors and trailers. AIRIDE airsprings convert waste deflection-space, required by conventional, steel spring trailer suspensions, into payload profit space—from 60 to 100 cubic ft. in standard 35-ft. trailers.

And because AIRIDE airsprings prevent road shock from reaching truck, tractor or cargo, gross vehicle weights can be reduced for bigger payloads with *improved* cargo safety. With AIRIDE airsprings on your truck tractors and trailers, payloads can step up as much as one full ton per

unit! And AIRIDE, the large-capacity, round-type air-spring, has been fleet-tested and thoroughly proved over 750 million road miles.

Try AIRIDE airsprings for your fleet. Like other AIRIDE truckers, you'll see substantial reductions in damage claims, tire costs per mile and maintenance expenses. For more profit-making capacity, *plus* lower operating outlays, put the pair—both truck tractors and trailers—on air! Get full details with Firestone's free AIRIDE booklet today. Write Firestone Industrial Products Company, Noblesville, Indiana.

AIRIDE[®] AIRSPRINGS for truck tractors and trailers by **Firestone**

Copyright 1959, The Firestone Tire & Rubber Company

Attention, fleet owners!

**BLACKHAWK'S
COMPLETE LINE—
THE ONE SOURCE FOR
ALL THE JACKS YOU
NEED FOR EFFICIENT
FLEET SERVICE**

- ★ *jacks to simplify service*
- ★ *jacks to speed inspections*
- ★ *jacks to slash PM costs*
- ★ *jacks to help keep 'em
highballing for profit!*

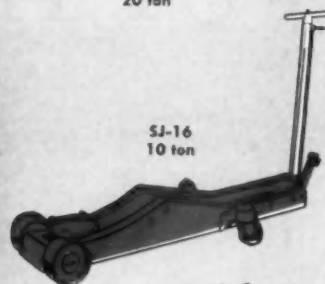
**THE PICK OF
THE JACKS.....**

Slash

SERVICE JACKS



**SJ-20
20 ton**



**SJ-16
10 ton**



**S-4
4 ton**

Also 1½ and 2 ton capacities



fleet service costs

with BLACKHAWK'S long red line

Blackhawk's long red line gives you the right jack for every fleet service job! Advanced fleet servicing demands time-saving transmission jacks, extra-heavy-tonnage floor jacks, higher-capacity horses.

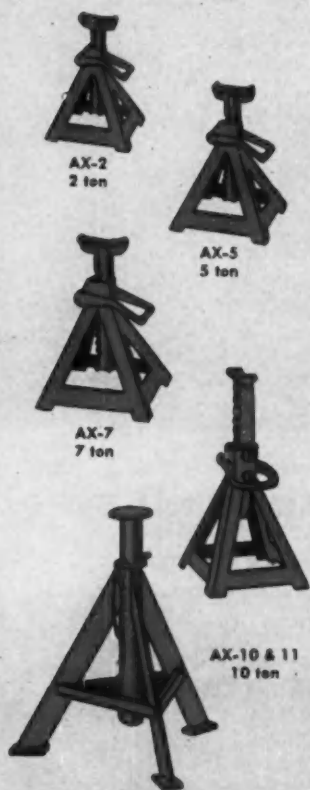
Only with Blackhawk's complete jack line can you match the jack to the job—make vehicle servicing simpler, easier...speed up routine inspections...cut

road failures and non-productive manhour expense!

Begin *right now* to crack the whip on hidden, profit-stealing PM delays and skim *more profits* from your operations!

Remember, there's a world of difference in jacks! Call your automotive jobber today and *insist on the best...insist on Blackhawks!*

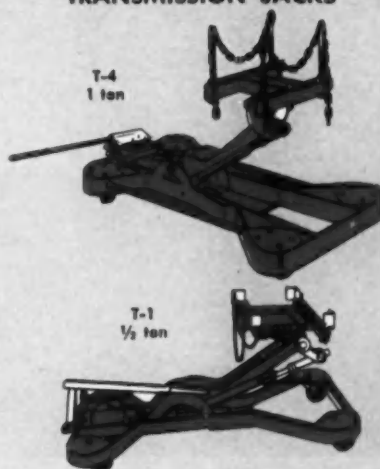
HORSES AND TRESTLES



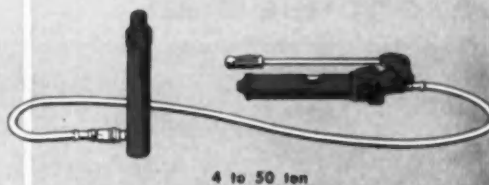
STANDARD AND HEAVY-DUTY HAND JACKS



TRANSMISSION JACKS



PORTO-POWER HYDRAULIC tools for repairing cabs, dumps, and other metal sections



**Call your automotive jobber now! He'll give you
a complete demonstration in your shop!**

WATCH FOR MORE BIG NEWS COMING FROM

BLACKHAWK®

BLACKHAWK MFG. CO., Dept. J-11-69, Milwaukee 46, Wisconsin

Cargo rides level with Brown



Large volume warehouse van



This Brown van, with deep 32" step behind landing gear and 8" step ahead of wheel wells, provides high cube at low weight. First unit of this type used in the Northwest, its wide doors permit easier and faster loading operations. Van's 2900 cu ft, 9,370 lbs weight carries payload of 20,300 lbs.

Brown adds all-steel trailer line



Newest additions to the Brown line of trailers are this straight-floor semi and its step-floor counterpart with all-steel components. You can get the trailer in 19 to 40 ft lengths as described, or, if lighter weight is desired, with aluminum skins and stiffeners at front, sides and/or top.

Cushionair



A typical load for this 40-footer includes glass, canned foods, foods, syrup in drums, clothing, airplane parts, truck tires. Quite a mixture, yet weight distribution and cargo shifting are no problem. No matter what the load arrangement or highway slope, Brown Cushionair suspension keeps trailer level. This proven air suspension has been in production for several years and is saving operators hundreds of pounds per unit for greater payload profits.



Brown and Cushionair are trademarks of
CLARK EQUIPMENT COMPANY
BROWN TRAILER DIVISION
 Box 410 Michigan City, Indiana

DATES and DOINGS

JUNE

- 14-15—Society of Automotive Engineers, Summer Meeting, Chalfonte-Haddon Hall, Atlantic City, N. J.
- 17-18—American Trucking Assns., Executive Committee Meeting, ATA Bldg., Washington, D. C.
- 18-19—Private Truck Council of America, Board of Directors Summer Meeting, The Greenbrier, White Sulphur Springs, W. Va.
- 15-20—Texas Motor Transportation Assn., Annual Convention, Hilton Hotel, San Antonio, Tex.
- 16-21—Pennsylvania Bus Assn., 38th Annual Meeting, Pocono Manor Inn, Pocono Manor, Pa.
- 19-20—Pennsylvania Motor Truck Assn., Annual Meeting, Bellevue-Stratford Hotel, Philadelphia, Pa.
- 19-21—National Defense Transportation Assn., 1st Annual Fair, Monterey County Fairgrounds, Monterey, Cal.
- 22-26—Air Pollution Control Assn., 52nd National Meeting, Statler Hotel, Los Angeles, Cal.
- 23-25—National Freight Claim Council, American Trucking Assns., Annual Membership Meeting, Sheraton-Cadillac Hotel, Detroit, Mich.
- 23-26—Ninth Annual Forum on Trucking Industrial Relations, American Trucking Assns., Sheraton-Plaza Hotel, Boston, Mass.
- 24-27—Independent Garage Owners of America, Annual Convention, Albany Hotel, Denver, Colo.

JULY

- 13-15—Truck Trailer Manufacturers Assn., 11th Summer Meeting, The Homestead, Hot Springs, Va.
- 16-18—Mississippi Truck Assn., Annual Convention, Buena Vista Hotel, Biloxi, Miss.
- 23-25—National Conference of State Truck Assn. Managers, American Trucking Assns., Cavalier Hotel, Virginia Beach, Va.

AUGUST

- 16-18—Society of Automotive Engineers, National West Coast Meeting, Hotel Georgia, Vancouver, B. C.
- 20-22—Tri-State Safe Driver Truck Rodeo, sponsored by the Pennsylvania, New Jersey, and Delaware Motor Truck Assns., New Castle County Airport, Wilmington, Del.

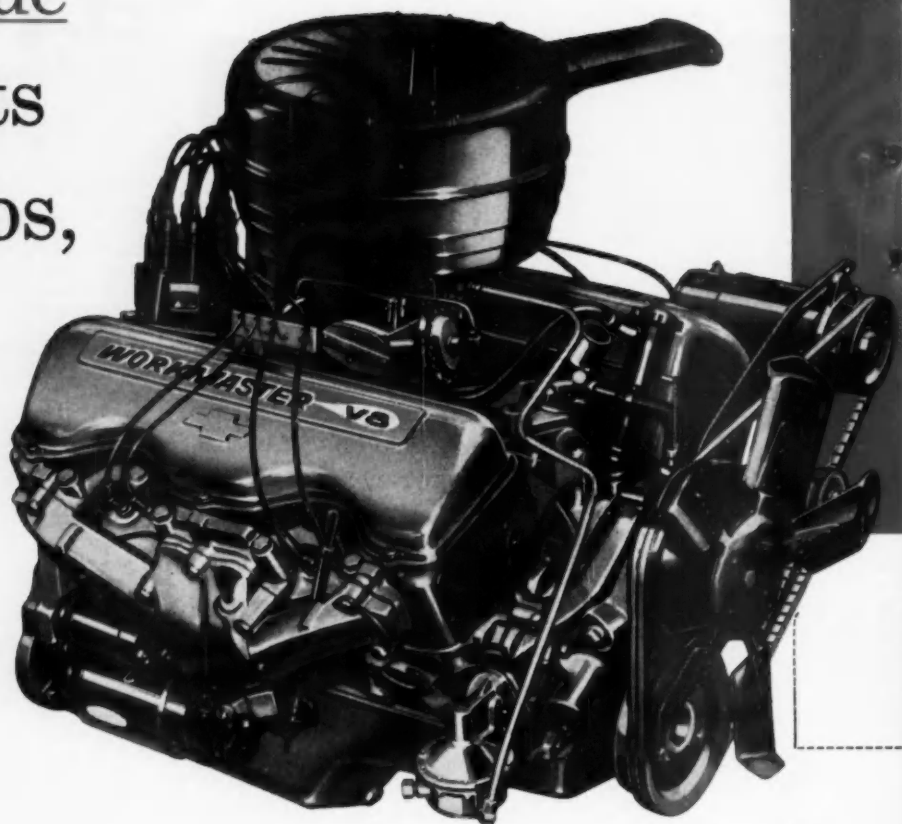
SEPTEMBER

- 14-17—National Auto Accessory and Parts Exhibit, Las Vegas Hall, Las Vegas, Nev.
- 14-17—Society of Automotive Engineers, National Farm, Construction and Industrial Machinery Meeting, Production Forum and Display, Milwaukee Auditorium, Milwaukee, Wis.
- 24-26—American Trucking Assns., National Truck Rodeo, Coliseum of the Kentucky Exposition Center, Louisville, Ky.

OCTOBER

- 5-7—Truck Body and Equipment Assn., Annual Convention and Exhibit, Sherman Hotel, Chicago, Ill.
- 15-20—Regular Common Carrier Conference, American Trucking Assns., Annual Membership Meeting, Los Angeles, Cal.
- 18-24—American Trucking Assns., Annual Convention, Statler and Biltmore Hotels, Los Angeles, Cal.
- 19-23—National Safety Congress and Exposition, Chicago, Ill.
- 26-28—National Lubricating Grease Institute, 27th Annual Meeting, Roosevelt Hotel, New Orleans, La.
- 26-28—Society of Automotive Engineers, National Transportation Meeting, La Salle Hotel, Chicago, Ill.
- 27-28—Society of Automotive Engineers, National Diesel Meeting, La Salle Hotel, Chicago, Ill.
- 28-30—Society of Automotive Engineers, National Fuels and Lubricants Meeting, La Salle Hotel, Chicago, Ill.
- 28-30—Automotive Parts Rebuilders Assn., 12th Annual Convention and Trade Show, Hotel Roosevelt, New Orleans, La.

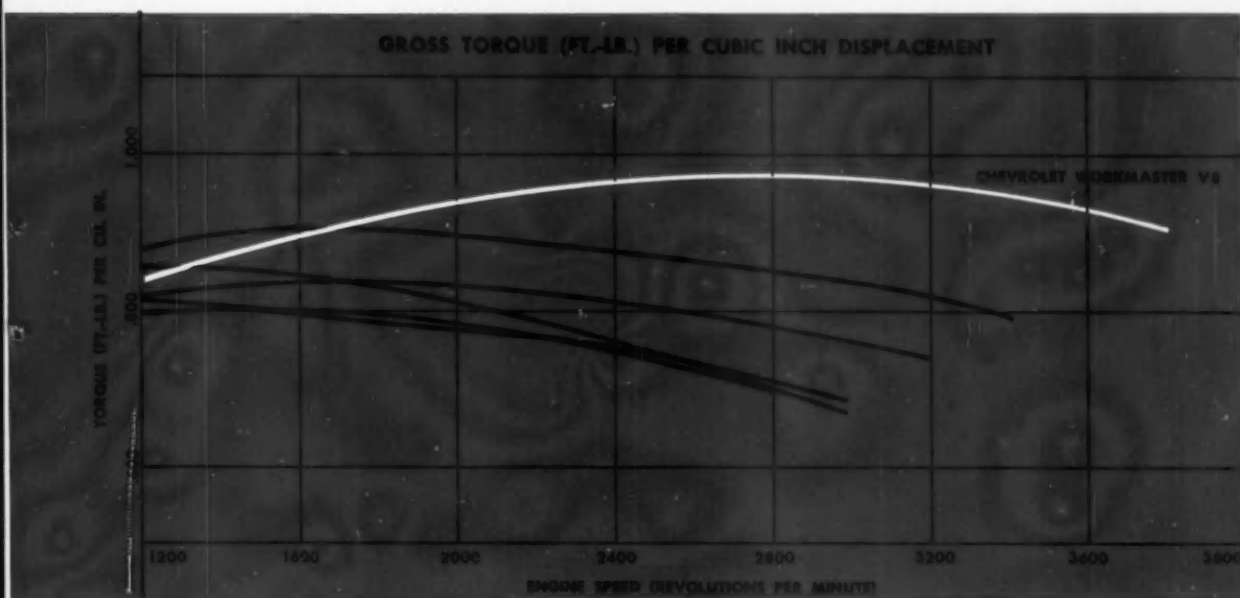
It's torque
that beats
tough jobs,
and this
engine
has it
to spare!



CHEVROLET'S 348-CUBIC

it's torque you need in a big-truck engine. Torque that gives the truck plow-horse pulling ability at low speeds . . . torque that assures the power to keep big loads moving briskly over the highway, right on schedule. And Chevrolet's 230-h.p. Workmaster V8, with efficient Wedge-Head design, short piston stroke and the right kind of valve timing, puts out a brand of torque that's made to order for your toughest big-tonnage hauls.

No job's too tough for a



Here's proof that Chevrolet's 348-cubic-inch Workmaster V8 puts out plenty of torque—all the pull and power you'll ever need for your high-tonnage hauls. The white curve above shows that the Workmaster provides high torque throughout the *entire* range of operating speeds; that it puts out high torque at low r.p.m.'s and offers peak torque at 2,800 r.p.m. — in the normal highway cruising range where you need it most! The black curves on the above graph represent the torque output of typical heavy-duty 6-cylinder engines of between 330 and 390 cubic inches of displacement. (Each of the above curves demonstrates actual torque output efficiency, on a basis of gross foot-pounds of torque per cubic inch of displacement.)

348-CUBIC-INCH WORKMASTER V8

Among today's big-truck V8's, Chevrolet's 348-cubic-inch Workmaster is outstanding for its ability to produce extra foot-pounds of work-whipping torque. This high torque output is the natural result of the Workmaster's unique design characteristics. Short piston stroke and large piston area, for example, comprise a torque-producing advantage, and *this engine provides the shortest stroke in its class.*

Advanced Wedge-Head design, with its fully machined combustion chambers, means high torque, too. It assures high turbulence of the fuel-air mixture and balanced power output from each cylinder. The Workmaster V8 has high volumetric efficiency . . . takes in the fuel-air mixture *efficiently* at all speeds. This, combined with a camshaft design that gives just the right valve lift and timing, assures high torque—extra pulling power to get you through the tough spots!

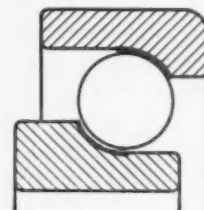
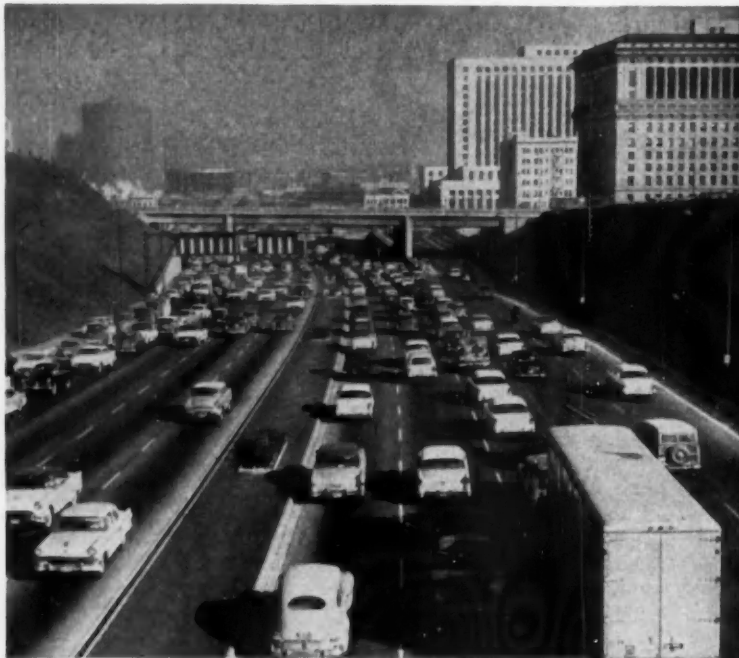
And this engine is designed for *durability* as well. Tough Moraine-400 bearings, for instance, last up to 7 times longer than ordinary bearings. Stellite-faced, high alloy exhaust valves resist wear. Tough induction-hardened crankshaft journals last longer . . . Rotocoil exhaust valve rotators increase valve life by as much as 300%.

For these reasons and many more like them, the Workmaster is a solid performer—a sure answer to extra savings on big-tonnage runs. Now *standard equipment* in all Chevrolet Series 90 and 100 trucks, it powers G.V.W.'s up to 25,000 lbs. and G.C.W.'s up to 48,000 lbs. . . or, in Series 100 tandem models, G.V.W.'s up to 36,000 lbs., G.C.W.'s up to 50,000 lbs. For the kind of torque and toughness you need to do big jobs better, see your Chevrolet dealer about a Workmaster V8! . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

Chevrolet Truck!

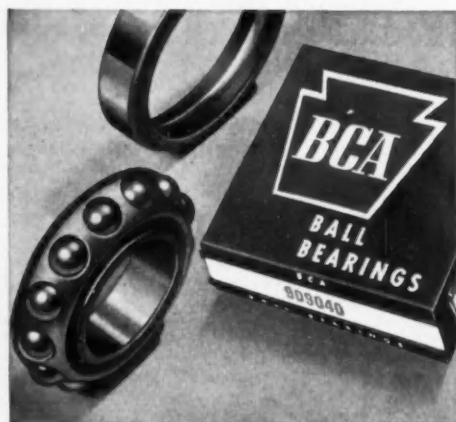


Better products, *faster*, from your BCA bearing jobber:



CROSS SECTION shows deep, contour-ground raceway; high shoulder that supports balls sideways under thrust load.

BCA cuts a deep "roadway", leaves a high shoulder so wheel bearings stand up on the curves



Uninterrupted raceway and extra-high shoulder let this BCA bearing take sideways thrust of 150% of direct load

Wheel bearings take a beating! They have to carry heavy direct loads on straightaways . . . take powerful sideways thrust loads on the curves. That's where BCA's longtime automotive bearing experience pays off!

Extra-high shoulder on one side of outer ring lets BCA wheel bearing take high thrust loads in one direction—up to 150% of direct load rating. Low shoulder on other side permits loading with maximum number of balls . . . gives this bearing high direct-load capacity, too.

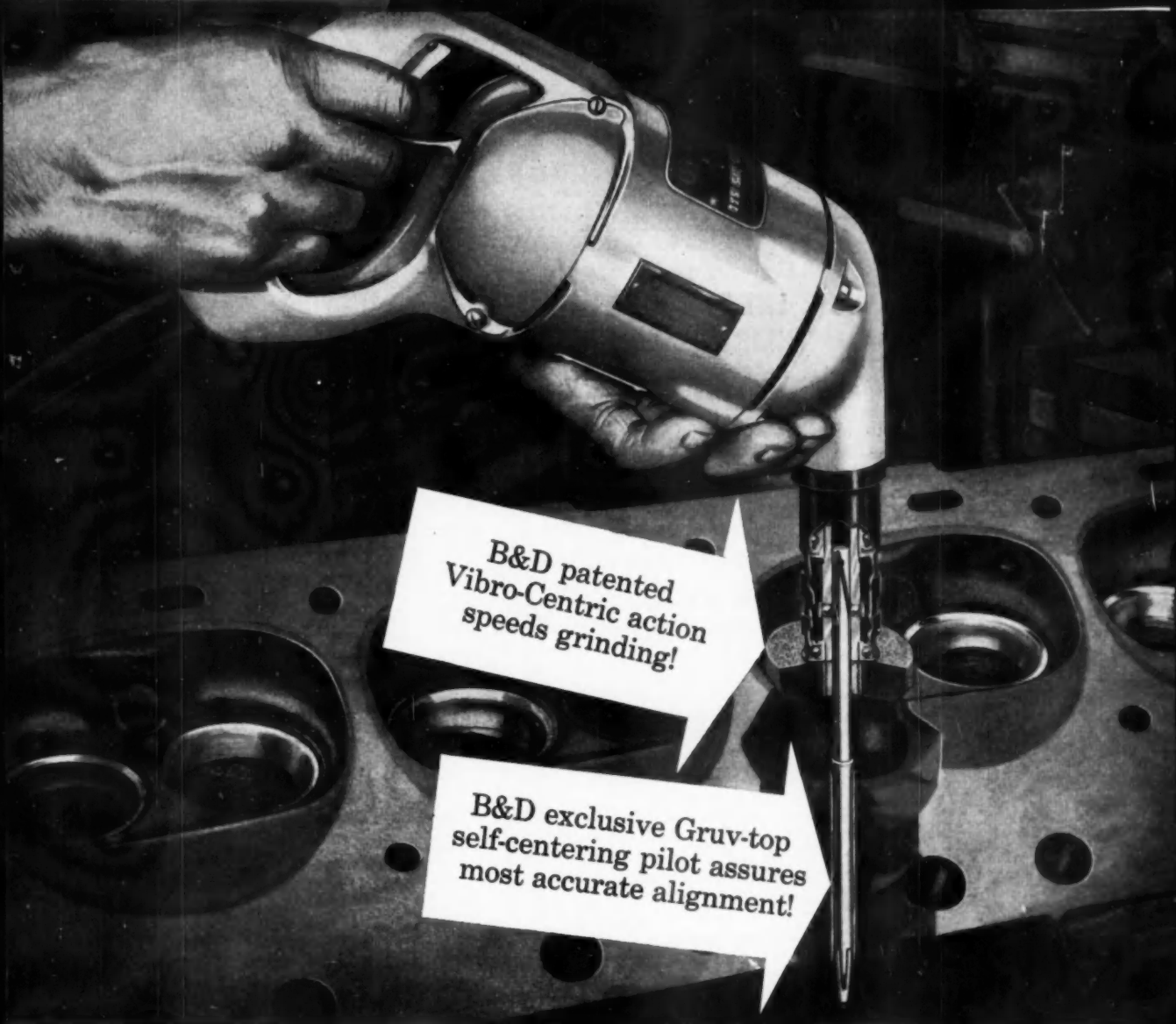
In wheel, clutch, transmission, differential or generator, BCA ball bearings give long, trouble-free service . . . install easily to save you work. When you need replacements, call your BCA jobber for fastest service!

BCA BALL BEARINGS

FEDERAL-MOGUL SERVICE

DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC. • DETROIT 13, MICHIGAN





B&D patented
Vibro-Centric action
speeds grinding!

B&D exclusive Gruv-top
self-centering pilot assures
most accurate alignment!

Mirror-finish valve seats in seconds with B&D Vibro-Centric System

You are looking at two patented and exclusive Black & Decker features that will give you faster, more accurate valve seat grinding than you ever thought possible! You'll eliminate *repeats*, too! The B&D Vibro-Centric System is fool-proof—combines simplicity, speed, finish and accuracy in *one* operation!

The key reasons are these: the B&D Vibro-Centric Driver lifts the grinding stone from the seat once each revolution. This reduces stone loading—speeds

grinding. The entire circumference of the seat is ground for correct alignment! And B&D's exclusive Gruv-top pilot is self-centering; compensates for worn valve guides! See the Black & Decker Vibro-Centric System in your own shop.

Call or write your local B&D distributor today. Find out how easy it is to own! THE BLACK & DECKER MFG. Co., Dept. 5406 Towson 4, Md. (In Canada: Brockville, Ontario.)

Leading Distributors Everywhere Sell



Black & Decker®

Quality Electric Tools...Power-built for top performance

Prices slashed on easy cleaning B&D NYLON Valve Guide Cleaners

Tough bristled B&D Valve Guide Cleaners reduce time lost in cleaning chores. Remove carbon and other deposits rapidly, thoroughly. Never mar or scratch! In actual test they resist wear even after 50 hours of continuous operation. 10 sizes—all designed to speed work—save you time! Ideal for other cleaning jobs, too.



LUBE LOGIC

Seven ways to

DO PREMIUM LUBES JUSTIFY THEIR HIGHER INITIAL COST?

Across the country, an increasing number of truck operators are now spending as much as 50 cents a pound for premium grease when they could get an ordinary grease for as little as 10 cents. The same situation applies to motor oils—truckers are spending as much as 60 cents a gallon more for premium oils. This can be an increase in costs of more than 1,000 dollars a year for a large fleet. How do they justify the additional expense?

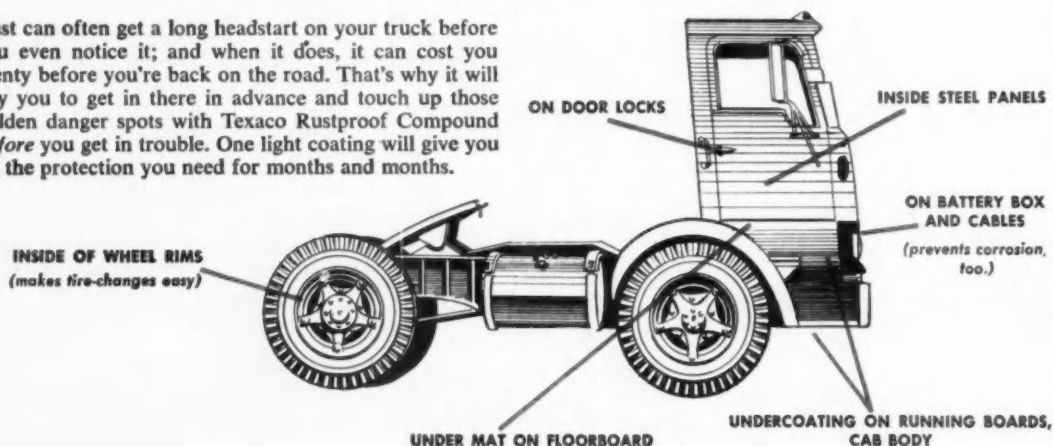
Cost-conscious operators give this reason: Premium lubricants allow them to stretch intervals between overhauls. They feel that paying 40 cents extra for grease, for example, is worth it if it stays put long enough to save them a 30 dollar garage bill.

The same holds true for motor oils. Truck operators are now willing to pay a premium for oils with detergent and anti-oxidation additives simply because these high-grade oils will postpone the necessity for ring jobs and other expensive motor repairs. Basically, more and more truck operators today are coming to the conclusion that the extra money they spend for premium lubricants can save five to ten times that amount in less frequent repair bills and longer life for their equipment.



ELIMINATE RUST IN THESE DANGER SPOTS

Rust can often get a long headstart on your truck before you even notice it; and when it does, it can cost you plenty before you're back on the road. That's why it will pay you to get in there in advance and touch up those hidden danger spots with Texaco Rustproof Compound *before* you get in trouble. One light coating will give you all the protection you need for months and months.



lighten your load this month



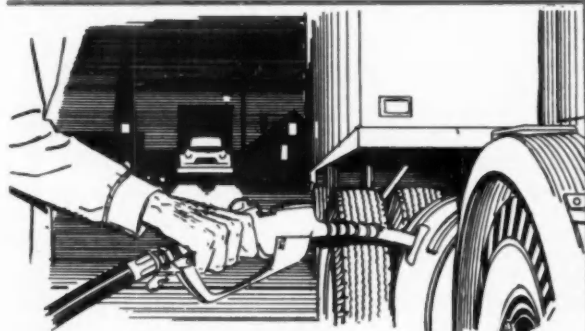
STOP WRESTLING WITH YOUR STEERING WHEEL

You don't have to go "best two-out-of-three" falls with your steering wheel to get around the corner. Here's how you can get that "power-steering feeling"—even in a cab-over truck! Just try some Texaco Molytex Grease Improved in your steering column. It will end your stiff wheel problem—and it resists leakage, too.



STOP JERKY TAILGATE ACTION

If your hydraulic tailgate or lift sticks and jumps, don't blame the manufacturer; the villain is usually the hydraulic oil. The jerky action may be due to foam which gets in the system. Your Texaco Automotive Engineer can give you a sure cure for this.



HOW TO KEEP CONDENSATION OUT OF YOUR TANK

Condensation in your fuel tank can make even the best gasoline sound like you were robbed. One way to avoid it is to fill your tank in the evening—when it's cool and the gas has contracted to minimum volume—and keep it filled overnight. This cuts down the possibility of condensation by reducing air volume.



TRUCK RECORD FOLDER

A sturdy manila folder has been designed to help you record vital facts on mileage, oil changes, lubrications, tire life, batteries, etc. Tell your local Texaco representative how many you need; or, write direct.



TEXACO AUTOMOTIVE ENGINEERS

Every month we'll bring you a batch of "sleepers", little angles, so easy to overlook, where big savings in money and time can be made. But month in and month out, your local TAE is the best source of money-saving lubrication ideas. Don't forget that "Lubrication is a major factor in cost control."

Texaco Inc., 135 East 42nd Street, New York 17, N. Y., Dept. CCJ-31.

**STRICKLAND equips 78 new trucks...
50 new trailers...with
WAGNER AIR BRAKES!**



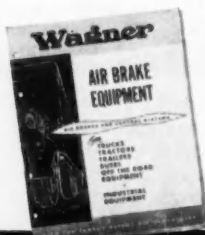
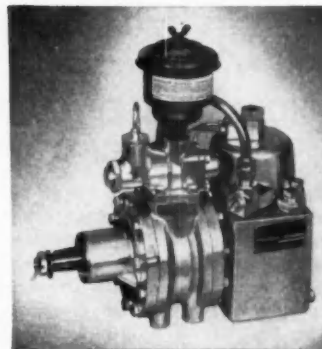
This fleet travels the equivalent of 3 times around the world every day!

Strickland Transportation Company of Dallas, with a fleet operation extending from New York City to San Antonio, knows that low maintenance for trucks and trailers means higher operating profit. Here's what L. R. Strickland, President, has to say about Wagner Air Brake Systems:

"Running an over-the-road truck fleet operation successfully depends greatly on getting the most out of the equipment you have. I specify parts and equipment on the basis of what will help lengthen the service life of these vehicles. I'm glad to tell you that when it comes to air brakes, I'll take Wagner every time. Our maintenance costs are more than satisfactory. One of the main things I like about the Wagner system is the Rotary Air Compressor. For my money it is the most efficient pump on the market."

"All-in-all, our experience and records show that Wagner Air Brakes are our best buy. I've just ordered 78 new trucks and 50 new trailers equipped with Wagner Air Brakes—what better recommendation can I give?"

Wagner Rotary Air Compressors, the only compressors that use the true rotary motion, are available in either 9 or 12 C.F.M. capacity, and in a drive-thru model for diesel-powered trucks.



Remember, when ordering new equipment,
be sure to specify Wagner Air Brakes.
Catalog KU-201 gives details.

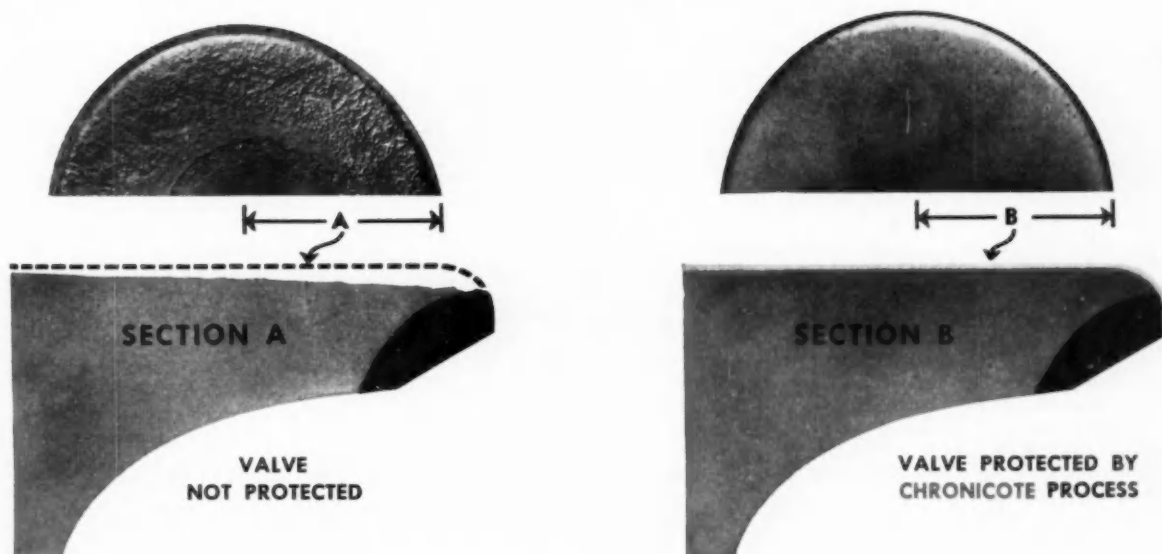
Wagner Electric Corporation

6470 PLYMOUTH AVE. • ST. LOUIS 33, MO.

WK59-9

CHRONICOTE

A New Low-Cost Corrosion-Resistant Valve Head Coating that Eliminates Deposit-induced Preignition



CHRONICOTE is a newly developed Eaton process of applying a chrome-nickel alloy to heavy-duty valve heads. At reasonable cost, it provides a degree of protection against preignition and corrosion heretofore accomplished only by means of much more costly methods.

We will be glad to furnish your engineers with technical reports covering life comparisons between **CHRONICOTE** and unprotected valves. We believe you will agree that Eaton **CHRONICOTE** Valves provide the long-sought solution to the problems of rapid corrosion and deposit-induced preignition. Write, wire or phone.



CHRONICOTE
Means Extra Thousands
of Trouble-Free Miles!

EATON

— VALVE DIVISION —
MANUFACTURING COMPANY
BATTLE CREEK, MICHIGAN

PRODUCTS: Engine Valves • Tappets • Hydraulic Valve Lifters • Valve Seat Inserts • Gears • Hydraulic Pumps
Truck and Trailer Axles • Truck Transmissions • Permanent Mold Iron Castings • Automotive Heaters and Air Conditioners
Fastening Devices • Cold Drawn Steel • Stampings • Forgings • Leaf and Coil Springs • Dynamic Drives and Brakes
Powdered Metal Parts • Variable Speed Drives • Speed Reducers • Differentials • Centralized Lubrication Systems



Laugh it off

Long-Haul Driver: "Yes, sir, son, I know you have a rough time negotiating these congested city streets, but you don't have to contend with half the problems we have on the open road."

City Driver: "Like what, for example?"

Long-Haul Driver: "Well, just ask any of the State authorities and they'll tell you that we have three great menaces on the highway these days, drunken driving, uncontrolled thumbing and indiscriminate necking."

City Driver: "Oh, I see. To put it briefly: hic, hike and hug."

CCJ

Carburetor Specialist: "They tell me in Mexico you can get three pounds of sugar, a pound of coffee, a quart of whiskey and a wife for three dollars."

Brake Specialist: "I'll bet it's lousy whiskey."

CCJ

Waiter: "Sir, your wife just slid under the table."

Truck Dispatcher: "That wasn't my wife. That's my wife who just came through the front door."

Waiter: "Oh, I see her now. She's the pretty blonde in the fur jacket?"

Truck Dispatcher: "No, she's that mean looking redhead shaking her fist at me."

CCJ

Reefer Driver: "Is she romantic? Man, my girl makes the famous sirens of history take a back seat. She's really wonderful when it comes to making love. I took her out on a picnic the other day."

Tanker Driver: "How does she picnic?"

Reefer Driver: "Oh boy! I'd rather take her on a picnic than eat."

Doctor: "You say that you can think of nothing but girls? My good man you'll just have to stop that or you'll lose your hearing."

City Delivery Driver: "Is that so?"

Doctor: "What did you say?"

CCJ

Safety Director: "DID YOU HEAR ABOUT THE TWO GIRLS WHO WALKED INTO THE EXCLUSIVE MEN'S CLUB LAST WEEK?"

Terminal Manager: "NO. WHAT HAPPENED?"

Safety Director: "ONE BECAME PANICKY AND RAN. THE OTHER REMAINED CALM AND COLLECTED."

CCJ

The two playboy truck mechanics were making the rounds of the bars:

"Tell me, Sam, after you drink a lot, does your tongue burn?"

"I don't know, Hank, I've never been drunk enough to light it."

"Cici Jay"



"His rating as a salesman is lousy, but his rating in diaries is terrific."

LEADFOOT LOUIE TELLS THIS STORY OF LIFE IN ROAD SIGNS:

SOFT SHOULDERS
DANGEROUS CURVES
MEN WORKING
CHILDREN PLAYING.

CCJ

Three salesmen were sitting in a tavern having a few rounds of beer.

"I hate to see a woman drink alone," said the liquor salesman.

"I hate to see a woman eat alone," said the grocery salesman.

The mattress salesman remained silent, like a gentleman.

CCJ

Route Bread Salesman: "How's business with you?"

Route Milk Salesman: "Well, you know how it is. The milk business is like sex. When it's good it's wonderful. When it's bad it's still pretty good."

CCJ

Truck Terminal Manager: "Young lady, we hire only top caliber people here in this office. Do you have any unusual talents or qualifications to recommend you?"

Cute Applicant: "Well, yes, sir. I've won several crossword puzzle prizes."

Truck Terminal Manager: "That's well and good, but we want somebody who will be smart during office hours."

Cute Applicant: "But, this was during office hours!"

CCJ

DINER WAITRESS (LOOKING OUT WINDOW): "IT LOOKS LIKE RAIN."

TRUCK DRIVER (EATING): "YEAH, MABEL, BUT IT SMELLS A LITTLE LIKE COFFEE."

Resume Work

2 more big companies choose '59 Plymouths

*Swing to Plymouth sweeps West Coast as over
400 new taxis roll in California!*

THESE MEN BOUGHT OVER 400 NEW '59 PLYMOUTH. AND THEY'VE BOUGHT 200 OR MORE PLYMOUTHS EVERY PEACETIME YEAR SINCE 1939!



MR. W. L. ROTHSCCHILD, President, Yellow Cab Co. of San Francisco: "In San Francisco our cabs have to be extra rugged, with power to take steep hills plus brakes to stop safely every time, and give a comfortable ride as well. We like cabs that stay on the street and out of the shop. That's why we like Plymouths."



MR. GEORGE E. WORSTER, President, Yellow Cab Co. of Los Angeles: "In a big city like Los Angeles we want cabs that travel maximum distances with a minimum of mechanical expense and be economical on gas and oil. We get at least 200,000 profitable miles from our Plymouth cabs before retiring them from service."

Money-conscious fleet operators—of taxicabs or private cars—all want the same things. They want good-looking vehicles that people are proud to drive and ride in. They want rugged, dependable vehicles that will operate economically under all conditions. Read what two profit-wise Californians (left) have to say.

If you're a fleet operator, you should know all about the *big difference* that Plymouth offers for '59. There's a big difference in Plymouth's good-taste styling, sparkling performance, roominess and the incredible smoothness of Torsion-Aire Ride . . . plus Plymouth's ease of entrance and exit and the sports car handling that takes so little out of drivers!

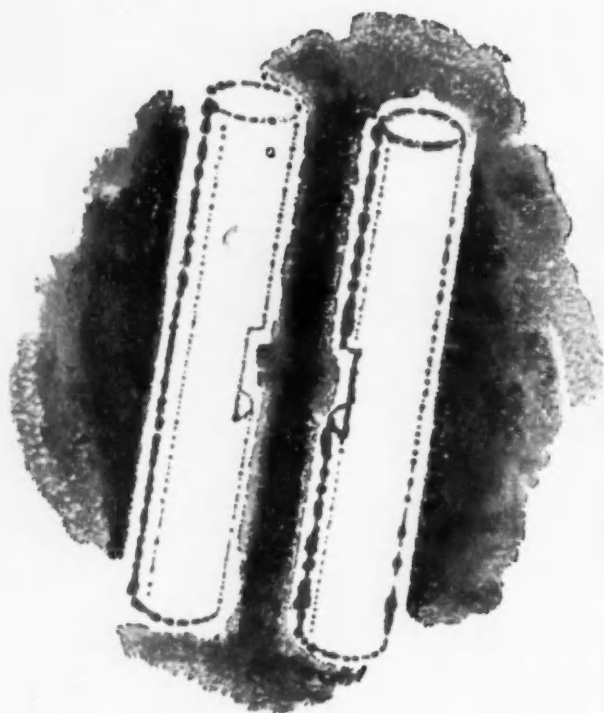
The facts and figures might make a big difference in your own profit-and-loss picture. Ask any Plymouth dealer.



Buying a fleet . . . or just taking a taxi downtown . . .

your best
bet is

Plymouth



King Pins... Lubrication... and How to Save Money

Versatile—that's the word for Sinclair Litholine® Multi-Purpose Grease. Use it for king pins. Use it for chassis. Use it for wheel bearings...for water pumps. It eliminates the dangers of misapplication. Moreover, this popular lubricant has earned an enviable reputation for lengthening the life of vital working parts. Change to Sinclair Litholine now. And when management asks how you've cut costs, tell them you've switched to Sinclair—and show them the results.

Find out how Litholine can help you.
Call your nearest Sinclair Representative
or write for free literature—Sinclair
Refining Company, Technical Service
Division, 600 Fifth Ave., New York 20, N. Y.
There's no obligation.

Sinclair
Litholine®
Multi-Purpose Grease

WAUKESHA

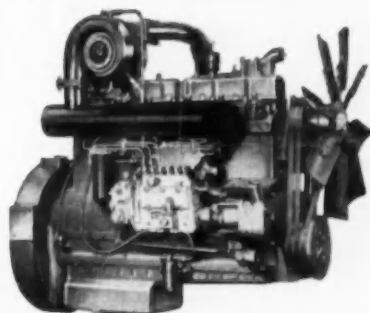
transport ENGINES

OVER THE ROAD OR OFF THE HIGHWAY

*the BEST
in all three!*

DIESEL

...in and out... down and up... over and through... go the trucks with Waukeshas—putting out the power that pulls and pays.

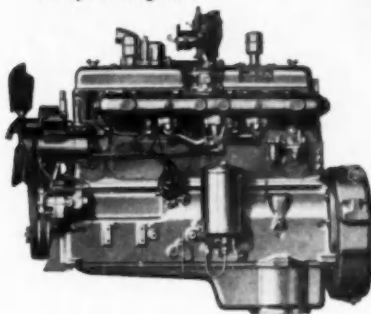


Normal or Turbocharged DIESELS from 60 to 350 hp.

Model shown is 148-DKBS—280 max. hp. 5¼ x 6 bore and stroke—779 cu. in. displacement.

GASOLINE

...where the pay-off is on payload—you'll make more miles and cut costs too, with these modern feature-packed transport engines.

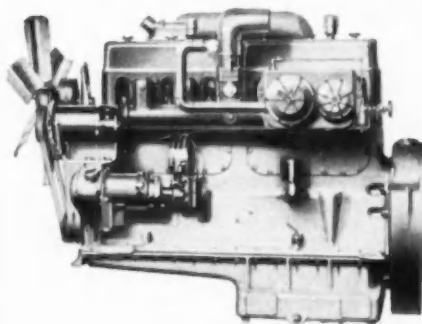


High Torque GASOLINE Engines from 30 to 280 hp.

Model shown is 140-GZ—170 max. hp. 4¾ x 5½ bore and stroke—554 cu. in. displacement.

LP-GAS

...those tremendous, crushing 30-ton, 35-ton, 40-ton loads... up stiff grades, without faltering or breakdown... day after day—with Waukesha.



BUTANE-PROPANE Engines from 40 to 300 max. hp.

Model shown is WAKB—300 max. hp. 6¼ x 6½ bore and stroke—1197 cu. in. displacement.

Send for Engine Bulletins

WAUKESHA MOTOR COMPANY, WAUKESHA, WISCONSIN

New York • Tulsa • Los Angeles

Factories: Waukesha, Wisconsin and Clinton, Iowa

Koenig rolls up 77,152 trouble- with a Spicer 5-speed "OPERATION"

Here's 77,152 miles of conclusive proof that Spicer transmissions are your best choice for economy, dependability, and top-flight performance. Be sure to specify Spicer with your next truck order.



SPECIFICATIONS

Ford T-950 Serial No.
8706-X
Delivered September 17,
1957
Rated GCW—75,000-lb.
Wheelbase—156-in.
Engine—534-cu. in. SD V-8
Transmission—5-speed
Spicer 6352 with 3-speed
Spicer 7231 Auxiliary

All the facts shown here as to the service history of the Ford T-950 truck serial No. 8706-X used in the Koenig Coal and Supply Company's operation are true, to the best of my knowledge and belief.



Glover Bond
Maintenance Superintendent
Koenig Coal & Supply Company

Florence M. Fowler
Notary Public
Wayne County, Michigan

free miles transmission during FORD'S **DURABILITY..."**

"Operation Durability" proved to be one of Ford's best-guarded secrets. In a daring test . . . launched months before the start of production . . . prototype models of Ford's new Super Duty Trucks were placed in the hands of leading fleets for use in normal day-to-day operations.

One of the vehicles, a Ford T-950 tandem, was put to workhorse duty hauling sand and gravel from Koenig's gravel plant at Oxford, Michigan to their concrete batching plants in Detroit.

This T-950, equipped with a Spicer 5-speed transmission and a Spicer 3-speed auxiliary transmission, has a rated GCW of 75,000 lbs. Yet it consistently pulled loads of 105,000 lbs. . . . even up to 120,000 lbs. . . . winter and summer, over hilly terrain, and through metropolitan Detroit's congested traffic.

In this dramatic demonstration of stamina and durability, the Spicer combination has logged 77,152 miles . . . without one bit of downtime in over 18 months. This record performance is verified by the sworn statements of Koenig's fleet superintendent, as well as the Ford engineers who supervised the project. For, in this truly authentic test, no mechanic was allowed to replace even a bolt without reporting it to the Ford engineers.



DANA

CORPORATION

Toledo 1, Ohio

Serving Transportation—Transmissions • Auxiliaries • Universal Joints • Clutches • Propeller Shafts • Power Take-Offs
• Torque Converters • Axles • Powr-Lok Differentials • Gear Boxes • Forgings • Stampings • Frames • Railway Drives

Many of these products are manufactured in Canada by Hayes Steel Products Limited, Merriton, Ontario

USE THESE PRODUCTS FOR THE BEST IN TIRE SERVICE!



1 Install Schrader Couplers to make every air outlet as convenient as your electrical service outlets.



2 Schrader Dual Foot Chuck lets you service even your largest duals without skinning knuckles!



3 Quality Chuck Gauge deflates, inflates, gauges—with trigger control! Install several.



4 Service packages of 100 Schrader Valve Caps. Service packages of 100 Schrader Valve Cores.

HOW TO MAKE TIRE INFLATION A PRODUCTIVE SHOP PRACTICE

1 Save countless steps with extra air lines—available in all your service areas. Schrader air line accessories include not only couplers and adapters—but everything you need—from blow guns to air line filters!

2 Select from the complete, quality Schrader line of chucks—ball foot or dual to be prepared for servicing all your vehicles—whether they're passenger cars or super-highway trucks.

3 Make certain tire pressures are checked daily—and recorded. Schrader gauges—whether chuck gauges, handy pocket gauges, or special test gauges—help you catch flats in the shop—where repairs are routine—not on the road where downtime means money lost!

4 Restore valves to factory freshness with quality Schrader cores, and seal in the air with genuine Schrader valve caps. A few minutes work insures an air tight seal at the valve.

And remember: Quality Schrader Valves, Tools, Repair Products and Accessories help you operate better, faster—and more profitably. Order from your supplier—and specify Schrader Products by name.

Send for this
full line catalog.



Schrader
a division of **SCOVILL**

FIRST NAME IN TIRE VALVES

FOR ORIGINAL EQUIPMENT AND REPLACEMENT

A. SCHRADER'S SON • BROOKLYN 38, N. Y. • Division of Scovill Manufacturing Company, Inc.

NEW!

ONLY ARMSTRONG
makes an economy light truck tire like this



**BUILT TO
DELIVER
... ANYWHERE!**

DELIVERS THE GOODS

EXCLUSIVE! New-shaped lugs with labyrinth stone-ejectors give drive wheels tremendous year-round traction to meet every delivery need.

DELIVERS THE MILEAGE

PATENTED! Armstrong interlocking sipes give this lug tire unmatched grip on slick roads, yet make tire "kiss the road" instead of scuffing, to give extra mileage. Extra deep tread!

DELIVERS ECONOMY

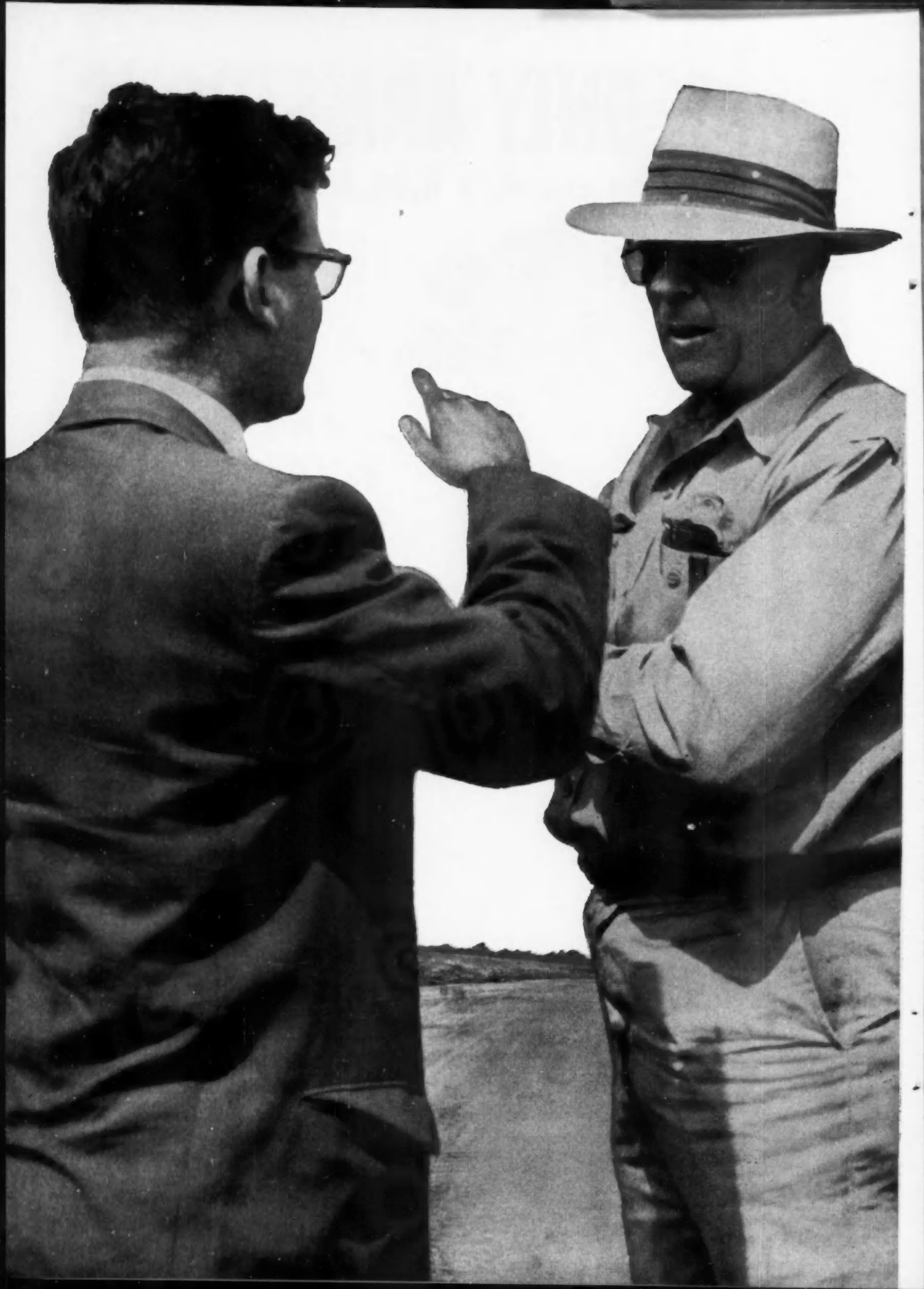
RUGGED! Rhino-Flex construction and "go anywhere" tread design give a new high in trouble-free service.

**ARMSTRONG
"MIRACLE"
COMMERCIAL
TRACTION**

Get all the facts on this great new tire —

ARMSTRONG RUBBER COMPANY

Home Office, West Haven, Conn.



HOW Standard Oil serves S.J. Groves on Bong Air Force Base job

Contractor moves up to 130,000 cubic yards of dirt in day... Standard Oil provides 'round the clock delivery of fuels and lubricants.

Situation: S. J. Groves is building 11,500 ft. runway and taxi strips at Bong Air Force Base, Kansasville, Wisconsin. Men under A. J. McKay, Groves' project manager, are moving 14 million yards of dirt, putting down a million tons of gravel base and pouring 222,000 cubic yards of concrete.

What was done: When Standard Oil received the order from Groves, two lubrication specialists—Jim Sreenan and Mike Harpham—from Standard Oil's Milwaukee offices went into action. They surveyed the fuel and lubrication needs of the 140 pieces of equipment on the job. They specified the Standard Oil products that would (1) do the job without requiring multiple inventories, (2) reduce the chances of misapplication. Then these men arranged for storage of fuel and lubricants

on the site and set up a delivery program with the Standard Oil agent located at Silver Lake, just six miles from the construction job.


Standard Oil agent, Fred Schmalfeldt, and his crews make deliveries to the job between 5:30 and 7:00 each morning and night. In addition, Groves' Euclid dirt loader is serviced by them at noon and midnight. Plus this, a standby truck is stationed at the base throughout the night.

What you can do: This is Standard Oil service to contractors. To get this kind of service on your job, all you have to do is call your nearby Standard Oil office anywhere in the 15 Midwest and Rocky Mountain states. Or write **Standard Oil Company (Indiana), 910 So. Michigan Ave., Chicago 80, Ill.**



P. S. Cauchy, master mechanic (center) and Standard men Jim Sreenan and Fred Schmalfeldt (left and right) settle details on fuel deliveries.

You expect more from  and you get it!



E. D. (Red) Sargent, Groves' job superintendent, and Jim Sreenan, Standard Oil lubrication specialist, square things away. Jim has the experience for such work as this. He has an engineering degree from the University of Wisconsin. He was an instructor at Standard's Sales Engineering School after graduating from it. He has four years' field experience.

Fleetman's

LIBRARY

REVIEWING THE BEST IN CURRENT PUBLICATIONS ON MAINTENANCE, EQUIPMENT
AND SAFETY OF INTEREST TO TRUCK, BUS AND CONSTRUCTION FLEET OPERATORS

How to Fix Aluminum Tank Trailers

*From Aluminum Company of America
770 Alcoa Bldg., Pittsburgh 19, Pa.*

In cooperation with several aluminum tank makers, Alcoa has published "A Manual for Maintenance and Damage Repair of Aluminum Tank Trailers." It covers everything from rebuilding major accident damage to closing seep leaks. The booklet is well illustrated and shows in detail specialized welding techniques. Various tables and diagrams show edge and joint preparations, and electrode choices. Tanker fleet operators will find this booklet a great help. Write to the above address for free copies.

Guide Shows Western Truck Service

*From Western Regional Manager,
ATA Western States Shippers' Guide
2018 Meridian Ave., So. Pasadena, Cal.*

A Western States Shippers' Guide is being published by ATA Services. It shows motor carrier service from over 833 points in Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. The guide gives direct and connecting line service to over 37,000 towns and cities. It also gives terminal locations, interchange points, tariff participation and cargo insurance. For further details and prices, write to the above address.

Power Tools Speed Body Work

*From Black & Decker Mfg. Co.
Towson 4, Md.*

This handbook describes the latest improvements in automotive body repairing. It shows metal soldering methods and the new resin method. Shown also are the latest body work power tools designed to cut repair time and costs. Ask for "Modern Auto Body Repairing." It's free.

1959 Tire Guide Shows Everything

*From The Elgar Co.
2 E. 23rd St., New York 10, N. Y.*

A pocket-sized reference book shows tire sizes and inflation pressures for all American-made cars 1946-59, most foreign makes, and load and inflation tables for both cars and trucks. It also has current price lists of all automobile tires and tubes. Price is \$2.00 each.

New Booklet Aids Truck Selection

*From Dodge Truck Div., Chrysler Corp.
Detroit 31, Mich.*

Dodge is offering a comprehensive 52-page booklet loaded with facts and figures to help fleet operators select the right truck for the right job. Included are sections on wheelbases and load distribution, spring and axle capacities, transmission and axle ratios, and engines and gradeability. A special trouble-shooting section shows causes of many parts and component failures. Last section gives performance, gradeability, and load distribution formulas, and weights and measures of practically all commodities hauled by truck. Be sure to write for your free copy.

Manual and Film Give Wheel PM

*From The Budd Company,
Charlevoix Ave., Detroit 15, Mich.*

Fleet operators can now get a slide film and preventive maintenance manual on Budd wheels and attaching parts. Both stress PM against preventable breakdowns and elimination of down-time. Recommendations apply chiefly to Budd wheels, although basic practices may be followed with any wheel, Budd says. Both film and manual are available through Budd distributors or by writing the company at the above address.

Government Reports Interest Fleets

*for sale by the Supt. of Documents
U. S. Government Printing Office, Washington 25, D. C.*

Listed below are recent government publications of interest to fleetmen. Catalog numbers for ordering, and prices are shown in bold face.

Hired Truck Transportation in Marketing Livestock. Marketing Research Report No. 297. **10¢ each.**

Marketing Cost and Margins for Fresh Milk. Catalog No. A 1.38:733/2. **10¢ each.**

Amendments to General Rules of Practice Before the Interstate Commerce Commission, Jan. 1959. Catalog No. IC 1.11:956. **10¢ each.**

Progress Report on the Federal-Aid Highway Program. House Document No. 74, 86th Congress, 1st Session. **70¢ each.** This report was prepared by the Bureau of Public Roads. Of particular interest is information on the status of the National System of Interstate and Defense Highways.

Don't miss listings of current literature from fleet suppliers in the New Products Section of this issue

*Let's set the
record straight!*



**RED BLOCK Superiority
Proved by Millions of Miles of
Rugged Service**

Throughout the trucking industry . . . and especially in heavy hauling operations on-or-off the highway . . . RED BLOCK has delivered safety, economy and all-round performance unequalled by any other blocks in similar service. For 10 years RED BLOCK has been recognized as the short name for World Bestos RED BLOCK COMBINATION . . . the only true brake block combination on the market.

**WORLD'S FINEST
BRAKE LINING!**

there is only **ONE**
true heavy duty brake
block "combination"—

WORLD BESTOS RED BLOCK

- The *only* brake block system of *any* kind with an *unconditional NO-FADE GUARANTEE* (heat or water)
- Safe, dependable stopping power *proven* under the most abusive load and road conditions
- Longer lining life . . . longer drum life . . . *proven* by actual fleet operating records
- Only World Bestos RED BLOCK COMBINATION gives you all these important features that add up to better, safer brakes . . . at lower cost per mile!

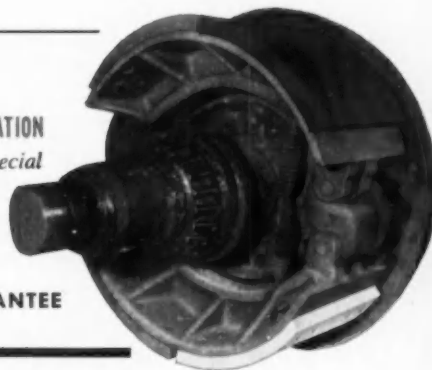
WORLD BESTOS

RED BLOCK COMBINATION

*Red Block + 3 Special
"D" Blocks*

The only Brake
Block System with
an unconditional

NO-FADE GUARANTEE
(Heat or Water)

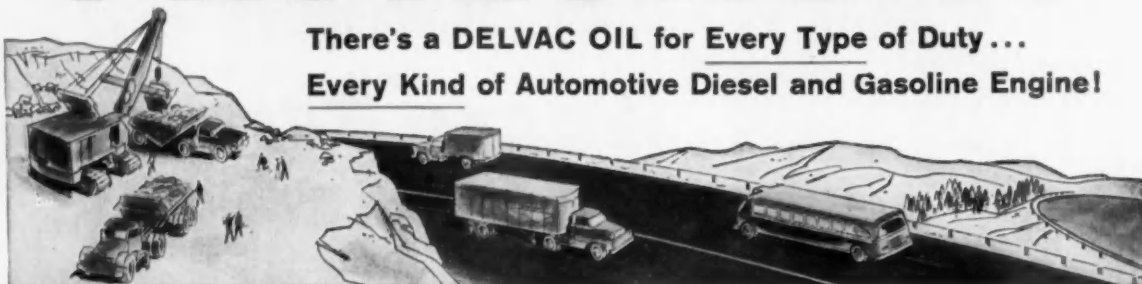


*For complete information about
World Bestos RED BLOCK Combination,
call your World Bestos Distributor or write direct to*

WORLD BESTOS

NEW CASTLE • INDIANA

Pick Your PROTECTION!



There's a DELVAC OIL for Every Type of Duty ...
Every Kind of Automotive Diesel and Gasoline Engine!

DELVAC OIL 900 SERIES

For normal heavy-duty performance in a wide variety of fleets, contractors' machinery and allied equipment.

Five Grades

Delvac Oil 910 (SAE 10W)
Delvac Oil 920 (SAE 20-20W)
Delvac Oil 930 (SAE 30)
Delvac Oil 940 (SAE 40)
Delvac Oil 950 (SAE 50)

API
Service Classification:
MS, DG

DELVAC OIL S 200 SERIES

For Caterpillar and other diesel engines requiring a Series 3 oil for extreme, heavy-duty conditions; ideal for mixed fleets equipped with various diesel and gasoline engines.

Two Grades

Delvac Oil S 210 (SAE 10W-20)
Delvac Oil S 230 (SAE 30)

API
Service Classification:
DS

DELVAC OIL S 100 SERIES

For diesel and gasoline engines requiring Supplement 1 detergent-dispersive characteristics; heavy-duty performance level between Delvac Oil S 200 Series and Delvac Oil 900 Series.

Two Grades

Delvac Oil S 110 (SAE 10W-20)
Delvac Oil S 130 (SAE 30)

API
Service Classification:
DM

DELVAC Special

For superior all-weather use in all types of commercial vehicles—trucks, buses, contractors' equipment—using diesel, gasoline or LPG engines, under all kinds of operating conditions.

Multigraded

(SAE 10W-20W-30) with
Supplement 1 detergency level

API
Service Classification:
MS, DG, DM

THE excellent performance properties of the Delvac oils help keep engines cleaner longer, help fight wear and extend engine life to overhaul, cut down excessive fuel and oil consumption rates. See your Mobil representative about these oils and also about Mobil's great PM Systems for truck-bus fleets and contractors.



Correct Lubrication

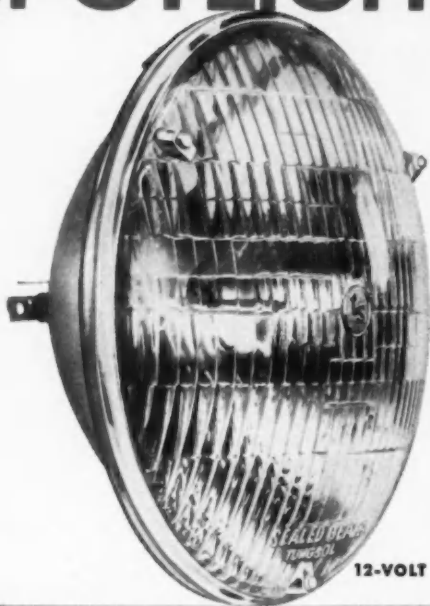
Another Reason
You're Miles Ahead with Mobil

Tune in "TRACKDOWN" every Wednesday, CBS-TV. See your local paper for time and station.

HEAVY DUTY

VISION-AID HEADLAMP WITH SPOTLIGHT LOW BEAM

6013

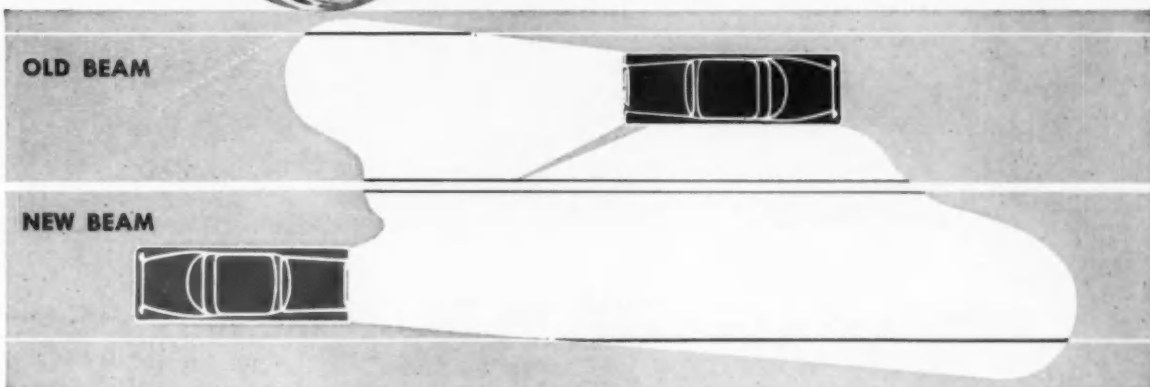


12-VOLT

NEW FOR RUGGED FLEET SERVICE

Redesigned lens • Improved high beam
Glare-reducing filament shield
Shock resistant, spot-welded filament support
E-Z aim platforms • Ruggedized filament mount

**BETTER VISIBILITY... SAFER PASSING
FOR ALL TWO-HEADLAMP FLEET VEHICLES**



Here's how the new spotlight low beam helps you see better and pass more safely

OLD Range of low beam in old-type 7-inch headlamps is no longer adequate for modern highway conditions. As vehicles approach, the opposing headlights create a glare that tends to cancel out the visibility of both drivers—and cause a critical “blind-spot” in passing.

NEW 6000 series spotlight low beam concentrates more light farther along the right side of road, away from oncoming lights . . . provides better visibility thru critical passing zone. Even against 4-headlamp vehicles and undimmed lamps, more light gets through. You pass with less eye strain, less hazard.

FOR PASSENGER CAR FLEETS:
Specify 6006 (6-volt) or 6012
(12-volt) Vision-Aid Headlamps
with Spotlight Low Beam.



TUNG-SOL®

NEW TUNG-SOL VISION-AID HEADLAMPS with SPOTLIGHT LOW BEAM
Lamp Division, TUNG-SOL ELECTRIC INC., Newark 4, N. J.



WHO MADE A FAST BUCK ON THIS BRAKE JOB?

Cheap replacement brake blocks may *look* like a saving in maintenance cost. And there are smooth talkers who will gladly seek to convince you. But try to find "saving" when the result is a tragedy of smashed property and serious, perhaps fatal personal injury. It just isn't there.

SAME APPEARANCE. All brake blocks—good or bad—look pretty much alike. It takes the trained, experienced eyes of a brake lining specialist to tell the difference. This deceptive appearance makes it possible for back-alley operators to make their fast buck . . . by offering inferior merchandise at low prices.

DIFFERENT PERFORMANCE. Of course, anyone can judge the true value of brake blocks that prematurely fail. But then it's too late. The unfortunate victim is at least out the cost of excessive down-time and early replacement. That's if he's *lucky*, because using substandard blocks carries the more serious danger of unsafe equipment that jeopardizes life and property.

No truck operator will find a bargain by sacrificing safety for the poor performance of inferior brake blocks, irresponsibly made in a back-alley shop. All that "bargain" will buy him is *trouble!*

PLAY IT SAFE. How can you avoid inferior blocks and get the performance you should expect? Surest way is to use only "name brand" brake blocks. Use a brand such as Bendix or one of the other *reputable* makes.

When you choose a replacement brand, consider these facts: Manufacturers of cars and trucks go to great lengths to protect their customers by installing brake linings and blocks made only by responsible companies. And, because Bendix has so satisfied these manufacturers, our linings are used on more new vehicles than any other brand.

It takes more than a bucket
and a kitchen stove to
manufacture quality brake blocks

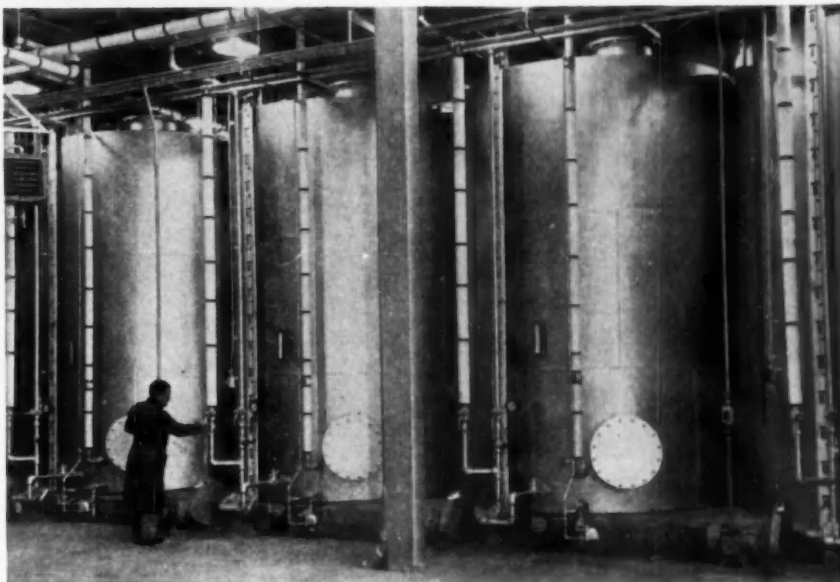


NOTHING IS LEFT TO CHANCE at Bendix-Eclipse when it comes to thorough testing of brake blocks. Special test trucks like this one measure braking characteristics of our blocks under every conceivable kind of operating condition.

FAMILIAR PACKAGES are these containing Bendix-Eclipse brake blocks and brake lining. Selected by more vehicle manufacturers for original equipment installation than any other make.



AT BENDIX-ECLIPSE® brake blocks are formed in single and double wave molds under tons of pressure and rigidly controlled temperatures. Result: a uniform, dense, strong, and tough friction material.




LARGE QUANTITIES of special Bendix-manufactured resins are kept in these special storage tanks ready for use in Bendix-Eclipse brake linings and for sale to other industries.

®TRADEMARK

BENDIX-ECLIPSE
Marshall-Eclipse Division
Troy, New York





**For increased traction, increased payload,
increased tire mileage, at a cost you can afford**

New Dayton Thoro-Trac^{*}

Here is important news for alert fleet operators. Think of it! With Dayton Thoro-Trac Tandem V-Belt Drives you will greatly increase driving traction . . . up your payload potential and reduce tire cost through greater tire mileage.

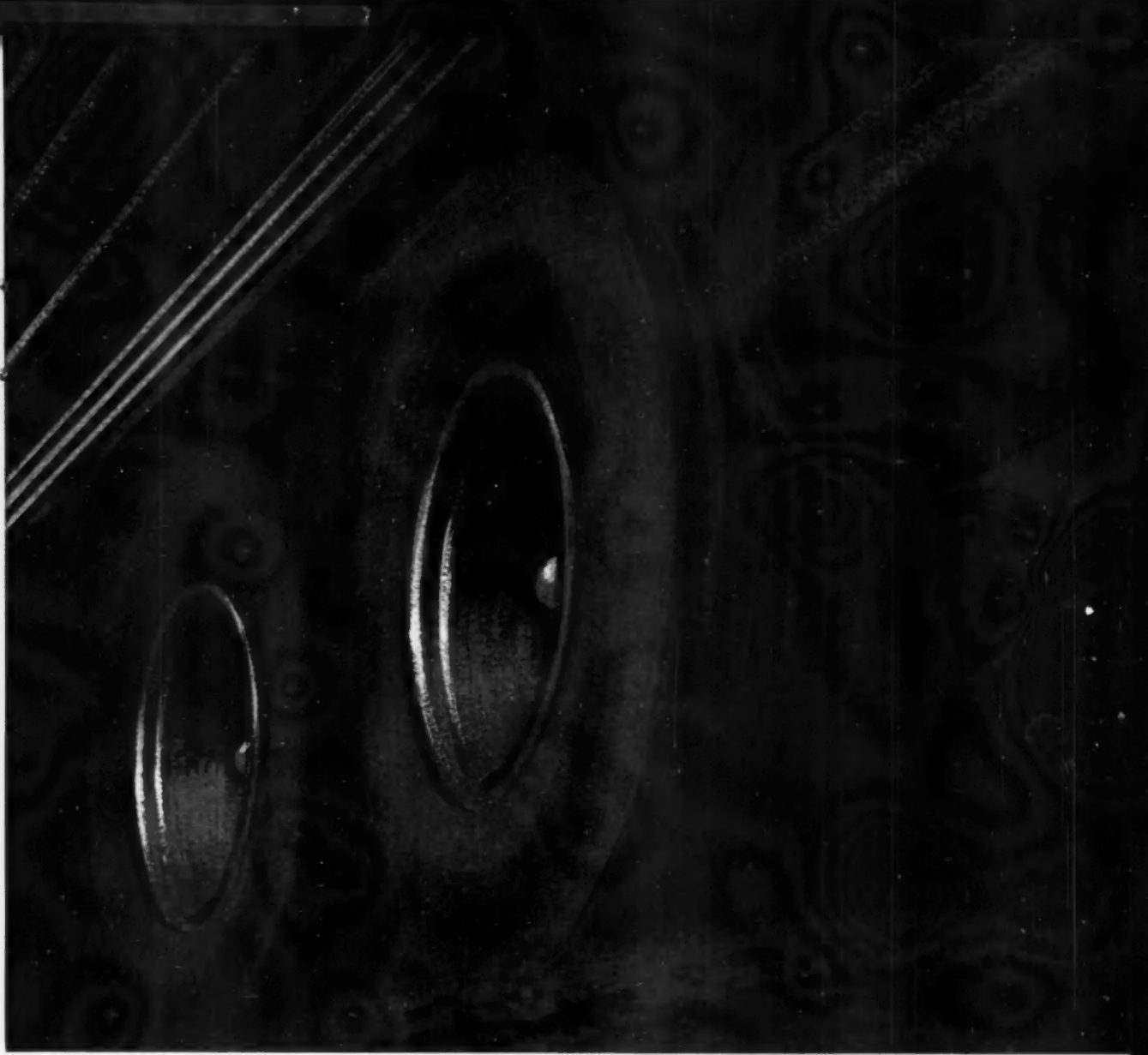
In addition, you will minimize wheel spin and tire scuffing, reduce side slippage and equalize braking for greater safety on any over-the-road haul—and *all this at low cost!*

Easy to install . . . Dayton Thoro-Trac V-Belt drives link up the driving axle with the dead axle

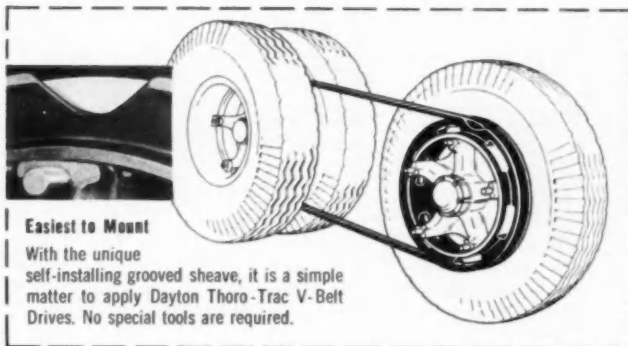
to give you eight driving tires instead of four . . . plus added tire mileage and traction.

Designed for aggressive truckers to improve their operation at lower per mile cost, the lightweight Dayton Thoro-Trac Tandem V-Belt drive quickly pays for itself. See your Dayton dealer for details on how to convert your present vehicles for increased traction, improved tire mileage and a bonus in lighter weight. Or write The Dayton Rubber Co., Tandem V-Belt Sales, Dayton 1, Ohio. We'll rush more information to you.

^{*}T.M.



Tandem V-Belt Power Drives!



Easiest to Mount

With the unique self-installing grooved sheave, it is a simple matter to apply Dayton Thoro-Trac V-Belt Drives. No special tools are required.



Dayton Rubber

Tandem V-Belt Sales, The Dayton Rubber Co., Dayton 1, Ohio
Gentlemen: I would like more information on Dayton's new
Thoro-Trac Tandem V-Belt Drives.
Please send me folder A-3172-58.

Name _____

Address _____

City _____

State _____

1959 New Truck Registrations

STATE		Brockway	Chevrolet	Diamond T	Dodge	Ford	G.M.C.	International	Mack	Studebaker	White	Willis Jeep	Willis Truck	All Others	Total
Alabama	Mar.	1	629	8	78	462	152	173	41	4	25	7	8	66	1,682
	3 Mos.	1	1,623	15	213	1,099	390	359	109	16	70	16	20	178	4,109
Alaska	Mar.		14		2	13		7		2			3	9	57
	3 Mos.		43		5	35		19		8	1		6	23	178
Arizona	Mar.		301		91	225	58	43	5	8	13	10	2	17	792
	3 Mos.		580		157	656	202	140	9	21	20	52	81	1,534	2,377
Arkansas	Mar.		491	1	66	313	90	84	3	5	3	1	6	17	1,079
	3 Mos.		1,799	7	198	1,205	311	259	10	20	24	13	17	43	3,906
California	Mar.		3,357	14	596	2,678	486	545	15	46	50	70	68	521	8,506
	3 Mos.		9,637	33	1,265	7,201	1,326	1,132	38	135	138	144	224	1,544	22,235
Colorado	Mar.		467		111	355	113	126	13	15	2	35	51	15	1,299
	3 Mos.		1,295	2	289	935	339	269	21	37	14	82	134	62	3,444
Connecticut	Mar.	2	123		50	107	33	96	16	5	14	11	12	31	500
	3 Mos.	10	426		101	313	101	203	36	7	60	36	59	92	1,434
Delaware	Mar.	1	34		23	16	17	40	10		12	1	4	5	163
	3 Mos.	6	172	1	55	93	49	96	63	2	20	5	9	26	597
District of Columbia	Mar.		105		15	134	16	23	4		2		2	30	331
	3 Mos.		206		29	223	43	34	6		6		1	62	610
Florida	Mar.	1	803	13	240	852	283	317	54	18	117	75	237	3,038	
	3 Mos.	1	2,221	58	392	2,037	612	596	155	36	238	68	177	67	7,172
Georgia	Mar.		541	6	114	471	130	136	23	11	29	6	81	1,534	
	3 Mos.		1,529	8	210	1,173	360	297	110	24	71	15	25	194	4,016
Idaho	Mar.		206		54	171	66	81		14	1	9	22	15	639
	3 Mos.		567		129	433	168	177	5	24	1	19	64	47	1,634
Illinois	Mar.		1,008	20	247	1,009	245	543	26	17	96	32	51	177	3,471
	3 Mos.		3,150	77	573	2,725	763	1,296	141	57	220	85	167	445	9,615
Indiana	Mar.		581	10	158	472	166	263	27	36	38	9	27	61	1,779
	3 Mos.		1,671	30	344	1,430	421	665	99	133	100	20	68	110	5,090
Iowa	Mar.		593	11	92	538	85	255	25	10	12	5	28	52	1,704
	3 Mos.		1,655	46	272	1,439	264	570	59	45	38	16	51	119	4,574
Kansas	Mar.		437	3	92	375	81	91	4	8	6	3	7	23	1,130
	3 Mos.		1,244	12	226	1,022	252	282	13	26	30	9	32	68	3,216
Kentucky	Mar.		443		325	97	122	16	6	9	7	10	23	1,031	
	3 Mos.		1,165	1	119	868	269	327	37	16	23	33	33	83	2,928
Louisiana	Mar.		721		81	539	133	150	15	4	44	7	11	44	1,714
	3 Mos.		2,076	5	177	1,449	382	341	33	18	21	25	30	155	4,722
Maine	Mar.	6	79	7	11	117	20	65	3	4	2	18	30	22	384
	3 Mos.	8	262	11	45	277	69	137	9	8	8	36	75	56	1,002
Maryland	Mar.	4	233	3	70	161	75	154	16	3	19	12	17	47	816
	3 Mos.	12	574	5	174	585	204	269	44	9	43	29	48	135	2,246
Massachusetts	Mar.	7	267	1	169	302	97	124	21	5	11	45	99	1,179	
	3 Mos.	11	428	4	213	493	151	184	30	6	47	16	78	139	1,800
Michigan	Mar.		778	10	236	780	204	206	26	12	48	27	44	115	2,486
	3 Mos.		2,440	26	542	2,162	684	429	76	33	122	67	178	313	7,092
Minnesota	Mar.		311		116	282	48	82	23	12	8	2	9	52	945
	3 Mos.		976	2	205	932	162	219	27	23	17	6	26	123	2,716
Mississippi	Mar.		4		156	361	126	184	16	7	5	12	6	23	1,364
	3 Mos.		1,286	4	214	438	227	332	31	21	7	16	11	85	3,242
Missouri	Mar.		846	9	111	612	235	306	11	11	13	12	63	2,243	
	3 Mos.		2,741	20	338	1,905	653	681	55	36	52	21	36	161	6,701
Montana	Mar.		221		84	213	60	72	1	7	1	16	40	14	729
	3 Mos.		603	1	190	518	160	219	3	26	5	37	119	53	1,934
Nebraska	Mar.		532	7	73	344	61	153	5	4	23	7	6	65	1,280
	3 Mos.		1,359	31	185	1,043	267	333	8	19	42	30	43	147	3,507
Nevada	Mar.		86		17	74	6	25				1	5	56	274
	3 Mos.		205		38	131	31	47	1	9	1	17	7	99	584
New Hampshire	Mar.		33		23	14	3	11				1	10	9	105
	3 Mos.		85		31	67	15	27	44	1	4	13	30	33	351
New Jersey	Mar.	35	557	18	178	556	152	277	71	7	58	22	50	132	2,113
	3 Mos.	73	1,392	37	332	1,340	403	546	210	17	146	66	126	361	5,049
New Mexico	Mar.		338	2	80	147	52	39	3	4	5	7	10	19	706
	3 Mos.		883	4	162	477	212	111	12	10	23	37	47	1,969	
New York	Mar.	42	920	5	273	1,030	268	787	102	17	9	200	41	292	4,061
	3 Mos.	83	2,406	19	654	2,167	640	1,386	248	25	402	172	407	903	9,512
North Carolina	Mar.		709	10	113	633	149	180	47	13	41	14	9	80	1,998
	3 Mos.		2,058	10	312	1,829	579	438	180	42	107	31	63	207	5,846
North Dakota	Mar.		177	1	46	139	31	66	1	2		1	6	4	474
	3 Mos.		480	3	113	420	99	175	3	8	2	8	22	16	1,349
Ohio	Mar.	3	1,078		386	1,120	272	484	64	24	145	35	76	190	3,895
	3 Mos.	5	2,588	38	708	2,625	621	897	177	68	334	99	201	468	8,631
Oklahoma	Mar.		435		62	366	65	58	8	7	9	3	2	16	1,031
	3 Mos.		1,550	4	130	1,209	241	228	18	19	24	13	12	48	3,486
Oregon	Mar.		429	9	91	391	93	106	25	19	21		65	118	1,367
	3 Mos.		1,101	11	187	869	212	226	41	42	59		153	274	3,177
Pennsylvania	Mar.	14	926	17	274	858	207	383	144	22	105	43	111	128	3,732
	3 Mos.	42	2,263	40	670	1,953	531	907	352	62	310	165	382	366	8,043
Rhode Island	Mar.		37		156	41	2	22	3				3	285	
	3 Mos.		202	1	167	173	13	87	18	3	13	1	12	59	747
South Carolina	Mar.		326	2	39	272	55	82	12	3	16	2	8	34	851
	3 Mos.		940	3	124	719	173	181	55	8	23	13	18	110	2,367
South Dakota	Mar.		117		31	89	40	48	1	3	7	1	3	2	342
	3 Mos.		563	1	111	453	136	202	1	21	12	15	29	21	1,565
Tennessee	Mar.		827	4	226	649	194	258	52	14	27	16	14	51	2,332
	3 Mos.		1,721	7	421	1,359	441	419	97	22	46	24	26	124	4,708
Texas	Mar.		2,872	5	312	2,104	428	707	69	58	51	22	40	97	6,773
	3 Mos.		8,594	17	918	6,020	1,283	1,447	158	121	217	86	117	235	19,203
Utah	Mar.		204	1	81	176	67	42	4	6	5	5	8	18	617
	3 Mos.		503	4	155	365	163	105	8	14	16	13	26	42	1,414
Vermont	Mar.		39		12	25	7	16				1	14	20	150
	3 Mos.	4	108	2	77	25	24	46	2	3		2	19	38	353
Virginia	Mar.		349	1	164	353	71	147	17	16	6	14	28	35	1,234
	3 Mos.		1,177	1	325	1,068	253	320	68	31	34	36	89	149	3,551
Washington	Mar.		515	1	128	408	115	118	19	8	10	4	25	88	1,439
	3 Mos.		1,139	6	244	976	354	287	29	27	18	21	85	274	3,460
West Virginia	Mar.		163	5	68	145	94	48	17	5	10	19	28	10	633
	3 Mos.		520	7	158	414	258	125	27	23	28	53	98	41	1,752
Wisconsin	Mar.		412	5	92	343	87	221	17	15	3	19	40	38	1,302
	3 Mos.		1,103	9	195	944	258	501	43	33	38	45	88	123	3,380
Wyoming	Mar.		138		39	130	28	37	7	3	1	4	29	5	421
	3 Mos.		407	2	100	330	116	97	15	7	4	18	73	20	1,188
Total	March, 1959	116	26,259	219	6,068	22,340	5,680	6,625	1,105	514	1,310	659	1,341	3,357	77,593
Total	March, 1958	59	19,383	227	3,357	15,380	3,977	6,040	880	374	1,100	447	1,112	2,377	55,483
Total	3 Months, 1959	267	73,677	625	13,158	69,204	15,942	18,586	3,032	1,435	3,252	1,633	3,917	9,239	204,067
Total	3 Months, 1958	172	53,936	671											

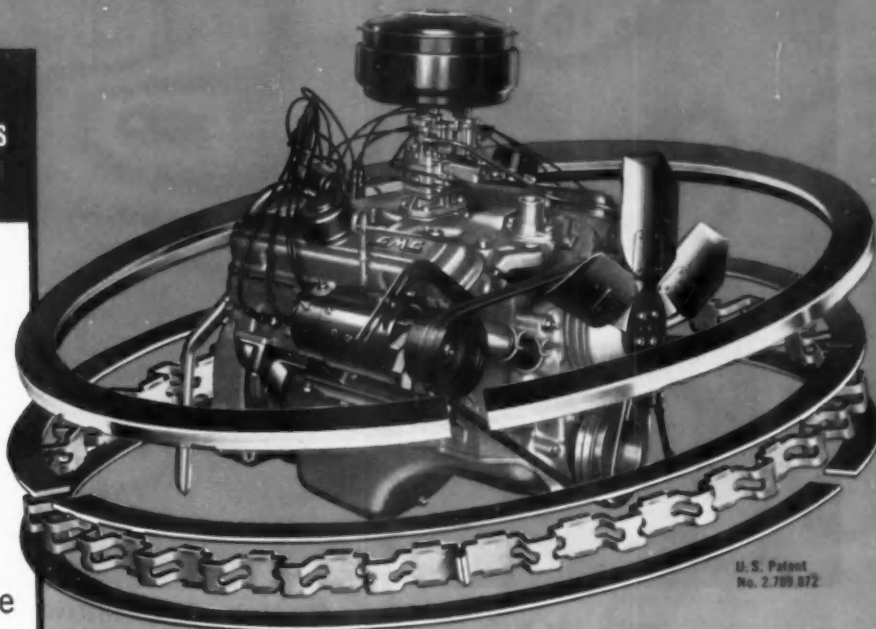
GMC

ANNOUNCES

Stainless steel oil rings in GMC KromeX piston ring sets

CHECK THESE POSITIVE ADVANTAGES OF STAINLESS STEEL OIL RINGS

- easy to install
- hold their fit in the cylinder
- seat instantly
- maintain original tension
- chrome-plated side rails for greatly extended ring life



AND THESE ADVANTAGES OF CHROME-PLATED TOP COMPRESSION RINGS

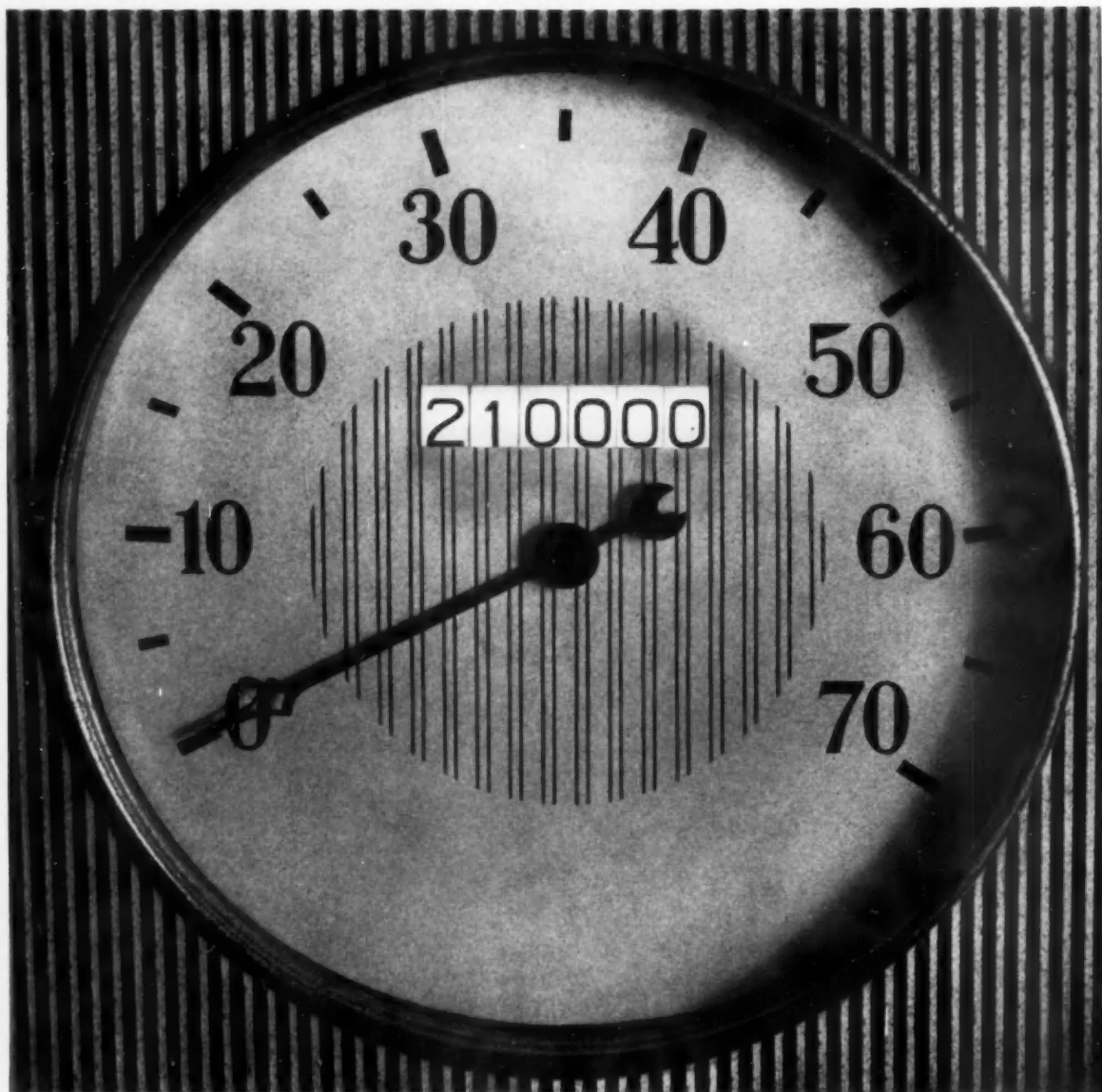
- positive blow-by control
- instant seating
- long life



GMC

**FACTORY ENGINEERED
PISTON RING SET**

Be sure to get the set with all these advantages—GMC KromeX piston rings. Available from your GMC dealer at your full discount.



truck performance data shows:

COST PER MILE CUT 23% WITH NYLON CORD TIRES

This is the experience of a major fleet owner. He paid \$12 extra for a nylon cord tire but it bought him 56,000 extra miles. Every click of the mileage gauge rang up savings of 23%. Figure this against a total mileage of 210,000 miles and you've got the strongest argument in favor of nylon cords: *more miles for your dollar.*

Nylon cuts mileage costs because nylon's the "muscle" fiber . . . the strongest cord fiber ever built into a tire. Test after test

proves it: nylon offers the most durable resistance against the four major tire killers: heat, flex strain, impact, moisture.

Nylon's strength cuts down time, clocks more original mileage and usually takes more retreads.

Today's nylon is stronger than ever. One reason: a growing share is being produced by The Chemstrand Corporation, a top nylon supplier. Run a comparison test of your own. Discover this profitable fact: you're miles (and dollars) ahead with tough nylon.

TIRE PERFORMANCE DATA:

Nylon Cord	Ordinary Cord
10:00 x 20.....	Size of Tire.....10:00 x 20
\$102.....	Cost of new tire.....\$90
3.....	Number of retreads obtainable.....3
\$45.....	Cost each retread.....\$45
\$135.....	Total retread cost.....\$135
\$237.....	Total Tire cost (with retread).....\$225
210,000.....	Total mileage obtained.....154,000
11.26c.....	Cost per 100 miles.....14.60c

Chemstrand® nylon

Chemstrand makes only the yarn; America's finest mills and manufacturers do the rest.

THE CHEMSTRAND CORPORATION, 150 Fifth Ave., N.Y. 1 • Plants: CHEMSTRAND•NYLON—Pensacola, Fla. • ACRILAN•ACRYLIC FIBER—Decatur, Ala.

KEEP YOUR FLEET RUNNING COOL

**General Motors Air Conditioning
by Harrison Helps Boost Company Sales,
Prestige and Employee Morale**



From GM Research Engineers—
**GREAT NEW DISCOVERY
FOR POLLEN SUFFERERS!**

Recent laboratory tests prove conclusively that Harrison's scientifically designed evaporator traps and washes away 98% of all pollen . . . keeps the air inside the car refreshingly clean.

GM *cool air by the carload*
HARRISON
AUTOMOTIVE AIR CONDITIONING

AVAILABLE AT YOUR
GENERAL MOTORS DEALER



COMPRESSOR BY FRIGIDAIRE

Don't let heat and high humidity stifle your sales this summer. Air-condition your fleet with Harrison. Your salesmen and drivers will maintain more drive—make a better sales impression—when they travel in the cool, invigorating atmosphere of a Harrison Air Conditioned car or truck. Harrison's Custom "under-the-hood" system is designed for *all* 1959 GM cars. The thrifty "under-the-dash" Cool-Pack is available for the new Chevrolets, Pontiacs and most Chevrolet trucks. And both systems feature Frigidaire compressors—for quiet, effortless operation, and the built-in capacity extra that assures fast, effective cooling comfort for *all* passengers. Whether you've already purchased your new cars and trucks—or plan to buy—ask your GM dealer about Harrison Air Conditioning, a quality General Motors product.

HARRISON RADIATOR DIVISION, GENERAL MOTORS CORPORATION, LOCKPORT, NEW YORK
AUTOMOTIVE RADIATORS • OIL COOLERS • THERMOSTATS • AIR CONDITIONERS • HEATERS • DEFROSTERS
COMMERCIAL CAR JOURNAL, June, 1959

B.F. Goodrich

These B.F. Goodrich truck tires have traveled between 100,000 and 250,000 miles



CONTEST HINT: This has been called "The 100,000-mile" tire. The user of these Traction Express tires (size 10.00-20), a large freight operator, drove these all-nylon tires ten hours a day for five days a week in all kinds of weather, on all types of roads.



CONTEST HINT: This is the original equipment tire on many new trucks. These Power Express Tubeless tires (size 8-19.5) travel almost 100 miles per day making stop-and-go deliveries. This tire wear continues six days a week, summer and winter.

Make the closest mileage estimate and win a THUNDERBIRD or CORVETTE

ESTIMATE the combined mileage on the two B.F. Goodrich truck tires pictured here and you can win one of 311 prizes. There's nothing to write, nothing to buy. Anyone who owns a truck or is employed in a transportation activity in a company operating trucks is eligible.

Simply add your estimate of the mileage on the Traction Express tire on the left to the estimated mileage on the Power Express Tubeless tire on the right for your entry. The closest estimate to the nearest tenth of a mile wins.

Your B.F. Goodrich Smileage dealer has entry blanks and complete details. He's listed under Tires in the Yellow Pages of your phone book. *The B.F. Goodrich Company, Akron 18, Ohio.*

YOU CAN WIN . . .

First Prize—YOUR CHOICE OF A 1959 THUNDERBIRD OR CORVETTE • 2nd Through 11th Prizes—MOTOROLA PORTABLE TELEVISION SETS • 12th Through 61st Prizes—MOTOROLA TRANSISTOR RADIOS • 62nd Through 161st Prizes—WATCH CUFF LINK SETS • 162nd Through 311th Prizes—CIGARETTE LIGHTERS.



Specify B.F. Goodrich Tubeless or tube-type tires when ordering new trucks or trailers.

B.F. Goodrich *truck tires*

Smileage!



Guide **RELIABILITY** keeps them rolling!

Any way you look at it, *safety pays!* A top safety record even means lower insurance costs. Guide's heavy duty, ICC-approved lamps and turn signals give more dependable service . . .

help make the night highway safer for your truck fleet!

The complete line of Guide Lamps is available through United Motors Service outlets and most truck dealers.

- Turn Signals
- Running Lights
- Fog Lamps
- Reflectors

Guide Lamp



... **BRIGHTEST NAME IN LIGHTS**

GUIDE LAMP DIVISION • GENERAL MOTORS CORPORATION • ANDERSON, INDIANA



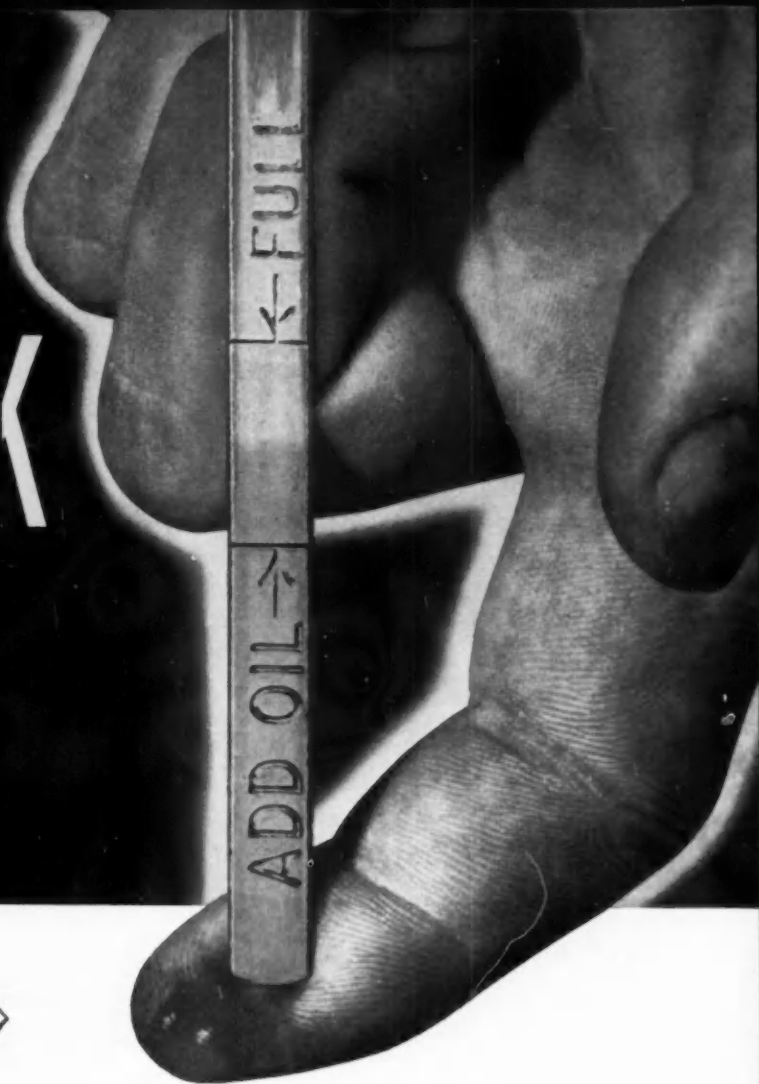
BULLETIN BOARD



**"Well, that snaps th' streak of 679,743 miles
of errorless chauffeuring!"**

CLIP AND POST ON YOUR OWN BULLETIN BOARD — REPRINTS AVAILABLE AT NOMINAL COST

NOW! DIPSTICK PROOF that...



HASTINGS keeps oil clean

Hastings *keeps* oil clean from filter change to filter change*—and you can prove it to yourself! Dipsticks from engines with ordinary oil filters may show dirty oil after fewer miles than you think. BUT oil shows clean on the dipstick of an engine with a Hastings Oil Filter Cartridge—right up to recommended filter replacement time.

The difference is DENSITE, an entirely different filtering material. Millions upon millions of selected, pressure-packed cotton fibres absorb dirt far beyond the capacity of ordinary filters. This is important—because dirt is an abrasive, and abrasives cause wear.

Next time you order cartridges, get Hastings—and you'll always have clean oil in every vehicle you operate.

HASTINGS MANUFACTURING COMPANY • HASTINGS, MICHIGAN

Filters, Piston Rings, Casite Additives, Spark Plugs

*When replaced as normally recommended. Proved by tests conducted under supervision of Pittsburgh Testing Laboratories, in accordance with U. S. Bureau of Standards procedure.

U. S. Patent Nos.
2,797,811
2,584,771





For 19 years, in world's heaviest traffic, Perkins' truck engines **GULF MAKES THINGS**

"Since 1958 was our 50th anniversary in the business, I think it's a good time to review our fleet performance over the years," says Robert W. Perkins, President of Perkins Trucking Company, Inc., Maspeth, New York.

Mr. Perkins' report, which follows, offers plenty of proof that Gulf makes things run better. For the last 19 years all his trucks have been powered by Good Gulf Gasoline and lubricated with Gulf motor oils and greases.

"For one thing, our operation is unusual for a fleet of more than 200 big units," says Mr. Perkins. "We are basically a stop-and-go delivery organization—operating

to, from and through New York City where the traffic is heavier than in any other place in the world.

"We average 560,000 deliveries a year, totalling 150,000 tons. With the high number of stops per mile of travel, engine maintenance is particularly important to us—and it hinges on good fuels and lubricants.

"We need a gasoline that burns clean. We need an oil with a good lubricating base and the proper detergent additives to prevent build-up of sludge. That's the kind of gas and oil we've been getting from Gulf for over 19 years—plus excellent technical service that has helped



Proof in the pistons. John Schleier, mechanical foreman, examines a piston from one of the engines of Perkins Trucking Company. Rings are free, and there is very little evidence of wear after 100,000 stop-and-go miles—using Good Gulf Gasoline and Gulfube HD motor oil.



Mr. Thomas Perkins (left) and Mr. Richard Perkins (center) in charge of operations, safety and maintenance for Perkins Trucking Company, discuss fleet operations with Mr. M. A. Rafferty, Gulf Sales Engineer.

Off and running—on Good Gulf Gasoline. Shown here, at their transfer terminal in Hicksville, Long Island, are some of the more than 200 units in the fleet of Perkins Trucking Company of Maspeth, New York. The firm uses over 30,000 gallons of Good Gulf Gasoline per month.

run clean on Good Gulf Gasoline...

RUN BETTER!

us keep our maintenance costs down.

"Before overhauls are required, we get about 100,000 stop-and-go miles from our engines. When heads are pulled the engines are clean. There is very little evidence of wear. There is no sludge in the crankcases."

How about your fleet performance? Maybe you should double-check—and see how Gulf makes things run better with clean-burning Good Gulf Gasoline and clean-working Gulf motor oils. Just call your nearest Gulf office. Meanwhile write for our booklet "More for Your Money with Good Gulf Gasoline."

GULF OIL CORPORATION

Dept. DM, Gulf Bldg., Pittsburgh 30, Pa.

Send me your booklet "More for Your Money with Good Gulf Gasoline"

Name _____

Title _____

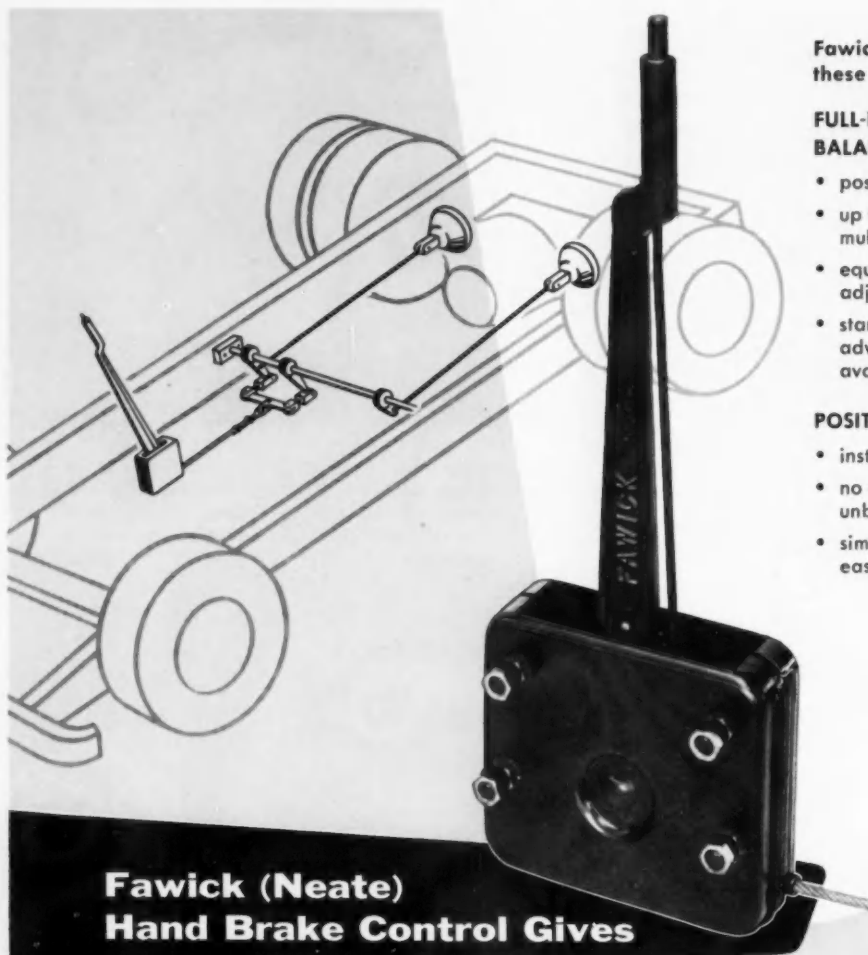
Company _____

Street _____

City _____ Zone _____ State _____

CCJ 8888





**Fawick (Neate)
Hand Brake Control Gives**

EQUALIZED, FULL-POWER REAR WHEEL BRAKING

The FAWICK (Neate) Hand Brake Control provides maximum performance for *both parking and emergency braking*. The combination of the multi-stroke brake lever and the equalizer bar and linkage, gives balanced, full-power to the rear wheel brakes through the service brake mechanism.

Trucks equipped with FAWICK (Neate) have mechanically applied hand-braking effort equal to the service brakes, plus a fool-proof, positive parking brake — both supplied by the

same mechanism. This unit provides for the maximum operating stroke of the slack adjusters without adjustment. FAWICK (Neate) patented multi-stroke units permit mechanical application of service brakes that meet and exceed I.C.C. parking brake requirements.

For full details on the advantages FAWICK (Neate) will provide your vehicles, call or write FAWICK Brake Division, Fawick Corporation, Cleveland, Ohio.

Fawick (Neate) provides these unmatched advantages:

FULL-POWER, BALANCED EMERGENCY BRAKE

- positive, driver controlled braking
- up to 10" cable take-up through multi-stroke operation
- equal brake loading without adjustment
- standard 10-to-1 mechanical advantage — other ratios available

POSITIVE PARKING BRAKE

- instant or gradual release
- no drive shaft vibration or unbalance
- simple design — eases drive shaft angularity

FAWICK **BRAKE DIVISION**
CORPORATION
9921 CLINTON ROAD • CLEVELAND 9, OHIO



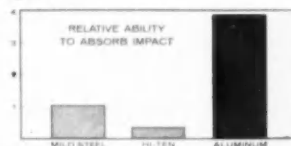
ALUMINUM DUMPER HAULS 36 EXTRA TONS DAILY FOR \$7,862 EXTRA PROFIT A YEAR

Portland Cement's new aluminum dump trailer moves a net payload of 27 tons of quarried lime rock per trip—two tons more than similar units built of heavier metals. Making 18 trips a day, working around the clock week in and week out, the extra payload adds up to an extra profit of \$151.20 a week or \$7,862 a year. This added revenue enables Portland Cement Company of Utah to write off the premium paid for aluminum in less than six months. In only a year and a half, the total cost of the new aluminum dumper is returned.

The Williamsen Body & Equipment Company, of Ogden, Utah, like other leading manufacturers, builds these extra revenue producing dump bodies with durable Alcoa® Aluminum alloys. Corrosion resistant and dent resistant, aluminum provides major savings in maintenance and also cuts dead weight for added tire and gas mileage on return trips. For the names of other truck operators who are enjoying comparable benefits, plus your FREE *Dump Body Folder*, write Aluminum Company of America, 1770-F Alcoa Building, Pittsburgh 19, Pa.

PROOF: Aluminum is tougher!

Dump bodies built of Alcoa Aluminum have *three* times the impact resistance of steel—at *half* the weight:



Your Guide to the Best in Aluminum Value



Weather Resistance...

Another reason why Du Pont DULUX® Enamel is the choice of leading fleet operators



BLAZING CARBON ARC and water spray duplicate and greatly multiply the effects of ultraviolet radiation and high humidity. This "accelerated weatherometer" is only one of many ways Du Pont paint chemists prove the super-stamina of "Dulux" Enamel.

How can you keep a fleet bright and attractive when it's continually exposed to harsh sunlight, rain and dew—the worst enemies of paint. "Choose a finish with built-in weather resistance," say leading fleet operators.

And to qualify Du Pont "Dulux" Enamel as the *standard* of durability, punishing tests are made 365 days a year. All the weather conditions, hard

knocks and vibration of transcontinental service are simulated in tests that maintain the great flexibility of special "Dulux" resins to guard against cracking and chipping . . . maintain the great resistance of "Dulux" to fading and chalking.

* * *
TRUE ECONOMY. When you put Du Pont "Dulux" on your fleet, you

take advantage of the continuing experience of the world's greatest paint laboratory. That's why your paint shop will find "Dulux" easy-working, reliable, economical . . . why "Dulux" stays out of the paint shop longer . . . why it snaps back bright and beautiful at every washdown. So remember, specify Du Pont "Dulux" Enamel.



THE FRITOS COMPANY gets both appetite appeal and top protection on their trucks with tough, bold "Dulux" colors. Painting cycles are lengthened and maintenance costs reduced, too.



MILES & SONS TRUCKING SERVICE operates hundreds of "Dulux" finished units on West Coast highways from Canada to Mexico. "Dulux" lasts and stays bright under temperature extremes.

Du Pont "Dulux" Enamel



BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

*you can specify Leece-Neville
Alternator-Generators as factory-installed
special equipment on more than*

90% of all new trucks



New Standard Type No. A001-2002AA — 60 Amp rating, 19 lbs., built-in Silicon rectifier



New Heavy-Duty Type No. A001-2000AA — 60, 100 and 125 Amp ratings, 32 lbs., built-in Silicon rectifier



One of the most common sources of road failure has always been the electrical system—batteries, generators, regulators. Since 1946, thousands of truckers have discovered a simple way to virtually eliminate this type of failure. They installed Leece-Neville Alternator-Generator systems!

**THE L-N ALTERNATOR-GENERATOR IS
A COST-CUTTING WORKHORSE!**

- ★ Produces enough current with engine idling to carry all electrical loads
- ★ Ample low-speed output . . . safe high-speed output . . . long life
- ★ Permits full use of all accessories at all speeds
- ★ Improves performance and cuts maintenance costs for entire electrical system
- ★ Assures easy starting even in the most severe weather

NEW L-N ALTERNATOR-GENERATOR SYSTEMS PERFORM BETTER, CUT MAINTENANCE COSTS!

Leece-Neville advanced engineering has eliminated the separately-mounted Selenium rectifier in L-N Alternator-Generator Systems! New improved Silicon Cell rectifiers are built-in as a part of the alternator itself.

The result is improved performance, plus all of these cost advantages . . . (1) reduced installation expense, (2) reduced maintenance costs, (3) comparable original cost to previous 3-piece systems, (4) savings in space, (5) greater heat resistance, and (6) longer life.

Also Available: Low-cost conversion kits for converting previous 3-piece systems to new 2-piece systems with built-in Silicon rectifiers.



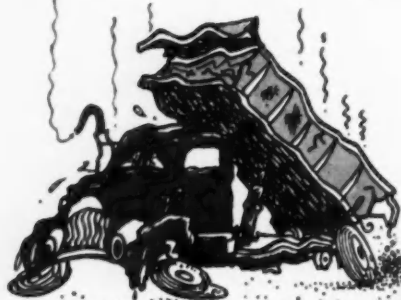
THE LEECE-NEVILLE COMPANY
CLEVELAND 3, OHIO
DEPT. FC-6

- ☐ Please send literature on L-N Alternator-Generator Systems.
☐ Have your salesman call on me.

Name _____ Title _____
Company _____
Address _____
City _____ State _____

DOWN IN THE DUMPS

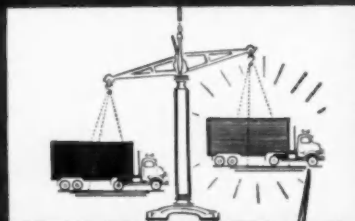
with Sir Payload Pete
(the modern Aluminum Knight)



2

Hold on there, pal!
I've got your answer!

?? Whence ??





5 And lightweight aluminum will save you plenty on operating expenses over the empty runs.



6

Pal, that's the clincher—no maintenance! Aluminum refuses to rust. And it's rugged to boot. "Gives" without gouging under impact. Your trucks will last longer!

Just ask the guy who knows...

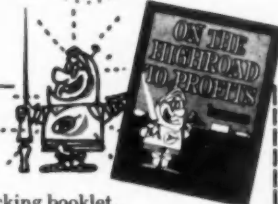


OK, OK! But our upkeep is...



Saves \$5 per day with each aluminum trailer. "Part of our business involves hauling slag 4 miles from the steel mills nearby," reports Howard Renker, president of Ideal Builders Supply, Cleveland. "Since we switched to our new 28 cu. yd. aluminum rigs, we've been carrying 3000 lbs. extra payload every trip—at about \$1 savings each time. With each truck making about 5 trips per day, that's \$5 clear savings, any way you figure it!"

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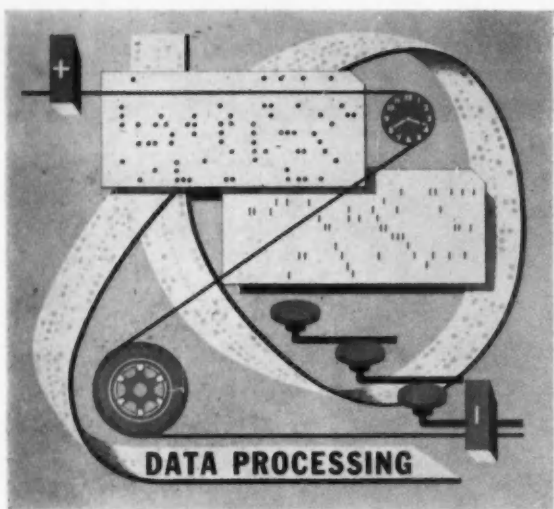
Kaiser Aluminum & Chemical Sales, Inc.
Dept. 972, 919 N. Michigan Avenue
Chicago 11, Illinois

- ☐ Please send me your free trucking booklet.
☐ Please have representative call. ☐ Phone

NAME _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____



Fleet Examples Show

How do you decide how much mechanized cost accounting would fit your fleet operation?

One answer is to have a look at the timely report from American Trucking Assns.' Accounting and Finance Council described in this article. It's got almost everything but specific fleet examples.

That lack could leave some doubt in your mind. So when COMMERCIAL CAR JOURNAL first heard the ATA study was underway, it started looking for fleets actually using data processing to get the cost facts they need for efficient operation.

It took a while to find the best examples, but we were successful. On the following pages, you'll see how. . . .

● P. B. Mutrie Motor Transportation, a 500-vehicle tank

How to Get Your Fleet Costs

Quicker More Accurately More Completely

DATA PROCESSING IS just a fancy way of saying "getting facts" . . . the cost facts you need to keep your fleet operation efficient—private or for-hire.

You've been "data processing" for a long time. It starts when you take the figures off the shop work order and add them to the vehicle's master record. It often results in the howl, "Why didn't somebody tell me about this before?" . . . as you discover some three months later a galloping out-of-line cost.

And that's just what data processing with today's equipment can do for you. You get your cost and operating facts faster, more accurately and—a real bonus benefit—more completely.

Look at it this way: You're not hauling freight in a horse and wagon era. It takes modern vehicles to compete . . . as well you

know. Even the commodities have changed since grandpa's day.

So it is with data processing. The commodity is the "data," the vehicle is the "processing equipment." Both have changed considerably since the days of "high stool" accounting.

Your experience dictates what facts or data you need to know to compete today. From this, you can determine what equipment you need to get them. Just as you select a pick-up or a 60,000-lb gross combination to do the hauling job you've got to do, you can select a small bookkeeping machine on up to a fully-integrated computer to do the data processing job that has to be done.

And maybe you can get a good start with the accounting machines already in use on other jobs in your organization . . . add more as data processing proves its value.

Data Processing Flexibility

truck common carrier fleet, ties together punch card maintenance cost accounting with the Interstate Commerce Commission's Uniform System of Accounts.

- Cotton's Bakery, a 100-truck private fleet, gets maintenance cost facts with mechanized accounting and only four forms.

- Virginia Transit, a 513-coach property, uses data processing in both its bus operation and in doing outside truck maintenance.

- Masten Transportation, a small common carrier fleet with 57 power units, profits by using mechanized accounting for operating control.

- Adley Express, a common carrier with 1200 vehicles, uses data processing for fleet control from top management on down.

**You may have the latest vehicles
and the newest in shop equipment but
still be counting on your fingers
when it comes to fleet cost control**

So there's your starting point.

Get together with your comptroller or chief accountant. Find out what he knows and what equipment he's got. He'll be interested in making it apply to fleet cost control.

To get both of you off on the right foot, you'll want to get a copy of a new \$20,000 report developed at the request of American Trucking Assn's. Accounting and Finance Council. (It won't cost you that much. Copies are available at \$10 for the first one, \$7.50 for each additional copy, by writing the Council at 1424 Sixteenth St., N. W., Washington 6, D. C.)

It's a fact-packed report with an impressive title—"Data Processing in the Motor Carrier Industry." It was prepared by the well-known management consultant firm of Peat, Mar-

wick, Mitchell & Co. of New York City. In it, they boil down returns from 393 truck fleets.

It comes in two parts. First one goes after answers to questions of what can be done, what are the advantages, how fleets are using data processing, how far can you go. Second part looks into the equipment itself, its application . . . to help you select the right components for the cost control job you want to do.

Possibilities of four mechanized

data processing systems are covered in the report . . . from the simplest to the most complicated, in this order . . .

1. Bookkeeping machines.
2. Punched card equipment.
3. Integrated data processing equipment.
4. Electronic computers.

Basic decision as to which depends on what information you want and how many computations are involved. As the report emphasizes, " . . . no one data processing system or group of systems can be established as the magic formula answer . . . "

Also, says the report, don't overlook the fact that data processing can give you valuable information you haven't considered it possible to get before.

For example, " . . . studies such as

the best location of terminals, the expected life of a truck or trailer, or the frequency and types of maintenance, are typical of data processing activities which were impossible or not feasibly economical before the advent of electronic computers."

It's not possible to digest the complete coverage of fleet operations as they relate to data processing contained in the report. But, to give you an idea of what you'll find, let's look at what it says about maintenance. And don't forget that much of what it says comes from what truck fleets are actually doing.

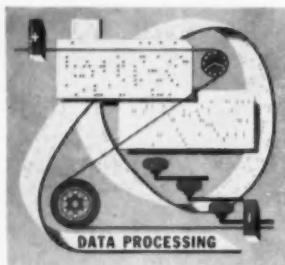
First comes a criticism: "It is not unusual to find little or no relationship between (shop maintenance) records and accounting department accumulations of maintenance expense."

From a maintenance cost

standpoint, says the report, there's little reason why these shop records and accounting data cannot be integrated to produce facts for better control. "Most of the information needed for maintenance reporting is available in routine accounting documents. With some additional coding and distribution, satisfactory records may be obtained with little if any additional cost."

Principal benefits of such a system are given as . . .

1. Maintenance costs for comparing individual vehicles or between makes.
 2. Cost and life statistics on such components as transmissions, brakes, generators, etc.
 3. Complete and accurate accounting for all main-
- (TURN TO NEXT PAGE, PLEASE)



Who Makes This Cost-Cutting Equipment?

Who makes this cost cutting equipment?

Well, it's a fast growing field with new suppliers getting into the act constantly, so no list is complete. Also not all those listed below offer all the equipment described in this special 14-page report.

You'll find most of them ready to help you take your fleet operation apart . . . see if it can't be put back together in better shape to give you the cost facts you need quicker, more accurately and more completely.

1. Burroughs Corp., Second & Burroughs Ave., Detroit 32, Mich.
2. Clary Corp., 408 Junipero, San Gabriel, Cal.
3. Cummins-Chicago Corp., 4740 Ravenswood Ave., Chicago 40, Ill.
4. Friden, Inc., 2350 Washington, San Leandro, Cal.
5. International Business Machine Corp., 590 Madison Ave., New York 22, N. Y.
6. A. Kimball Co., Rewe St., Brooklyn 11, N. Y.

7. Kleinschmidt, Inc., County Line Rd., Deerfield, Ill.
8. Marchant Calculators Division, Smith-Corona-Marchant, 1475 Powell St., Oakland 8, Cal.
9. Minneapolis-Honeywell, Datamatic Division, Newton Highlands 61, Mass.
10. Monroe Calculating Machine Co., Morris Plains, N. J.
11. National Cash Register Co., Dayton 9, Ohio.
12. Remington Rand Division, Sperry-Rand Corp., 315 Fourth Ave., New York 10, N. Y.
13. Royal McBee Corp., Data Processing Division, Port Chester, N. Y.
14. Teletype Corp., 1400 Wrightwood Ave., Chicago 14, Ill.
15. Underwood Corp., 33rd & Park Ave., New York, N. Y.
16. Victor Adding Machine Co., 3900 North Rockwell St., Chicago 18, Ill.

How to Get Your Fleet Costs

Continued from Page 101

tenance expenses—time, material, overhead, inventories, payroll.

One of the most interesting suggestions in the report is in the field of labor standards. Where the shop operation is large enough, it says . . .

"The most effective method of measuring the effectiveness of shop labor and controlling labor costs is the use of standards. If these standards are established properly, excess or idle time can be accounted for properly rather than hidden and charged against a work order.

"The most effective . . . are those established for each operation such as changing spark plugs, installing a new speedometer, and so forth. Where general standards are used (such as total labor for engine overhaul) only the total variance . . . can be determined." When you have a standard for each operation within the overhaul and each overhaul is analyzed in relation to these standards, you can spot the individual mechanic or other cause behind the out-of-line cost, says the study.

PM scheduling becomes less a matter of guesswork. With complete data on vehicle and component life you can find realistic intervals for PM inspections.

More than that, machines can be used to schedule rigs into the shop at the right time . . . and to revise schedules as conditions change.

Mileage control is another area where machine accounting can pay-off. Equipment utilization can cut costs for any fleet. In a large enough operation, says the study, "Earlier equipment utilization reports with subsequent reduction of investment and operating costs have been justifications for computers . . ."

Lesser but no less important reasons for mileage control in today's fleet operations include fuel use taxes, pro-rata registration and mileage taxes.

When it comes to third structure taxes, the report groans like a typical fleet operator: "The administrative burden imposed on motor car-

What's Involved in Mechanizing Maintenance Costs?

riers in this area is astounding. Those people who are responsible . . . obviously had absolutely no conception of the clerical and reporting problems and resultant costs."

If your fleet covers various mileages in several states, each with different tax structures, this one job alone can probably justify adding some form of machine system. Using punch cards, for example, a single card for each trip can be used to gather all the data. By showing vehicle number, origin, destination, route, weight, and mileage in each state on the card, the machines can be set up to produce all your reports on time with a minimum of effort.

Do you run your rigs too long or do you lose money by trading them too soon? It's tough and time consuming to work out the right depreciation schedule for each rig.

With machines, you can decide basic depreciation policies, then let the machines alert you when a rig is due for replacement.

With a good data processing system you get the facts and let the machines do the mathematics for you. Result: You can answer "Yes" or "No."

If you're a safety director you have to know facts about the accidents your men have. Without facts you waste time on things that aren't critical, miss others that are.

Machines can be a big help in pin-pointing your operation so you can cover problems as they develop. A good driver record system can also help you set better standards for hiring new men.

Future planning is a big field where you can find value in data processing. Will you need more mechanics two years from now? How many will you need? What part of your shop will need them most?

A good data processing system can give you clues now so you can start early to find the right men.

These are only a few of the many ways that modern fact-handling equipment can pay off for you. There are more specific examples in the articles that follow. They too should whet your appetite.

But don't go overboard! Sure, the equipment is good. It can perform minor miracles compared to pencil and paper figuring. But it's only a tool, not a magic wand. Like almost anything else, you can have too much of a good thing. And too much data processing equipment, like too little, can be costly.

There's not much difference from what you're already doing. It starts with a repair job.



Data goes to the shop clerk who quickly records it on punch cards instead of writing it



out in several record books. From there it goes to the machines that sort out the data



you want. It ends-up where costs always do on your desk — but quicker and more complete





MUTRIE Bases Punch Cards on ICC System of Accounts

Every maintenance job can be fully described in one line of numbers on a punch card with a new code system. Here's how . . .

AN ANSWER TO THE PROBLEM of how to get fast, complete maintenance reports has been found. It's the brainchild of Edward J. Smith, superintendent of equipment and maintenance for P. B. Mutrie Motor Transportation, Waltham, Mass.

Heart of the system is a number code. With it, a detailed description of any job performed in the maintenance department can be expressed as a single line of numbers.

This makes it possible to put the information on punchcards. Then, using the IBM machines which the fleet has for its other accounting job (billing, traffic studies), it is a simple matter to produce complete summaries or individual breakdowns of cost data. An outline of the code and an example of how it's used is shown below. (The code can be adapted on cards designed for other makes of data processing equipment.)

Here's the code Mutrie uses in

Reading the punched-out numbers from left to right on the card at left, you come up with 1-202-9-13113810-0505-47-0000615. It describes a job done and—when you know the code—is easy to read. Actually the machine does the reading, can summarize maintenance costs under any of the following headings. . . .

First vertical column identifies what kind of vehicle was worked on . . . 1—truck or tractor, 2—tank, 3—boxes or vans, 4—platform body, 5—low bed and 6—pole trailer.

Skipping the next vertical column (to provide spacing), the next three spell-out the equipment's number. So in this example, we have Truck or Tractor No. 202.

Next number identifies the charge. Only three numbers are used in this vertical column . . . 1—purchased parts, 7—part from stock and 9—labor. This card shows the labor cost for the job.

Next series of numbers (13113810) describes the work done. First three digits are based on the Interstate Commerce Commission's Uniform System of Accounts. It omits, however, the first digit of the ICC numbering.

TASCO - 5081

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260
261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280
281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300
301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320
321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340
341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360
361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380
381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400
401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420
421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440
441	442	443	444																

Date	18	Clock No.	Terminal	Name
This is sheet number _____ of _____ sheets.				
For Office Use		Verify Unit No.	Type	JOB TIME
ICC Account	Index	Tractor	Trailer	Type
				In
				OUT
		FOR OFFICE USE ONLY		
		HOURS		
		WAGES		
		CLASS		
1				
2				

Quantity	Part No.	Description of material used	ICC	Unit	Typ	Cost	Class

Mechanic work sheets have been simplified. Sheet goes to shop office for coding, then data goes on punch cards

It took seven years to develop the system. But the results are worth it, Smith points out. The Mutrie fleet includes more than 500 pieces of rolling equipment and seven maintenance shops. It covers 20 states and the Province of Quebec, Canada.

With an operation of this type, it used to be impossible to get maintenance reports completed in time for tight cost control.

"I shudder when I think back to what our records

punching a card

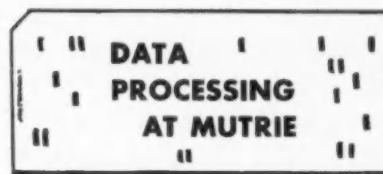
Here, the 131 spelled-out becomes ICC's 182.4131—Repairs and servicing line haul revenue equipment.

The next three numbers cover 22 repair groupings—too long to reproduce here. First two numbers show the basic type of work done, the last shows the part worked-on. In this case, it was cab body work—13—on the door—8.

Next number describes the kind of job done . . . 1—repair, 2—check, 3—adjust, 4—remove, 5—install, 6—replace, 7—clean, 8—overhaul and 9—weld. Next number tells reason for repair . . . 1—road service, 2—accident, 3—service truck, 4—new equipment. For both categories, 0 is used when the one of the other items does not apply. This job—10—was routine repair.

Next number group shows the day and month. This job was done on the 5th—05—of May—05. Following this is the mechanic's number. No. 47 did the job described here.

Last series of numbers is the cost of the job. Since this card is the labor charge (9 in seventh vertical column), the numbers here indicate a labor cost of \$6.15.



system used to be before the new system was perfected," says Smith. Mechanics had to fill out elaborate forms. One full-time clerk was kept busy in the maintenance department posting information on each piece of equipment to cards which were kept in rotary files.

With from 6000 to 8000 entries to be posted each month, it was practically impossible to produce monthly summaries by hand.

The number code system — based on the ICC System of Accounts — was developed first. With it, says Smith, "after much trouble we got our total unit costs for a month, but we didn't know on what units they were being incurred. In order to find out, we had to go back into the mechanic work sheets, invoices, and other records."

Then the present system was developed. The mechanic's work sheets were revised and simplified. At the top of the form, the mechanic notes the date, his time card number, the terminal, and his name. For each job, he lists the number of the unit, the work that he did, the parts he used, the time "in" and the time "out."

The work sheet then goes to the maintenance department office for coding. After it's coded, it's mailed to maintenance headquarters at Waltham, Mass., where the punch-cards are prepared and processed.

At headquarters, the accounting machines include an IBM 026 key punch, an 082 sorter, an 077 collator, a 402 tabulating machine and a 519 reproducing summary punch. With these machines, says Smith: "We now get summaries and detailed breakdowns in easy-to-read and handle form. These give us an immediate knowledge of costs that we could not have had before the system was installed, without tremendous waste of manpower."

"Just by scanning the sheets we can peg instantly what costs are getting out of line."

In addition to current cost data, the card system serves to gather a cost history of each unit. When work on a unit becomes excessive, Smith investigates to find out why.

The cards are also useful for comparing performance of various makes and types of equipment. With the equipment's performance record in this form, the fleet can base its buying decisions on down-to-the-penny cost facts.

Other fleets can profit from the system. Says Smith: "In terms of speed, convenience, and the valuable information we now have at our fingertips, the IBM system has proved to be an ideal costing tool that could be adopted with profit to other fleet maintenance operations."

Here are the forms: (1) Daily Inspection Report, (2) Shop Work Order, (3) Vehicle Journal, (4) Vehicle Master Cost Record. Forms (1) and (2) have multiple copies over a punch card

COTTON'S BAKERY

"Mechanizes" Costs

with only **4** Forms

Simplicity and speed of "Keysort" system prove answers to 100-vehicle fleet's cost control needs. Now one employee does the job in only 20 hours

DATA PROCESSING for cost control can be simple.

Proof: Four simple forms provide fast, complete information on the 100-vehicle fleet at Cotton's Inc.—Baton Rouge, La., bakery fleet. It takes one employee about 20 hours a week to handle all the necessary work short of actually preparing checks.

With vehicle costs, including gas and oil expenses, running at from \$1,500 to \$3,000 per vehicle per year, the fleet's expenses make up a big piece of the bakery's total budget. That's why having cost reports available *in time to correct causes of unnecessary expense* is important to this fleet's management.

The Daily Inspection Report (above, right) has two sheets. Top one is paper with a carbon back. Bottom one is the actual punch card.

Reports are bound in sets of 27, giving the driver a month's supply at a time.

The driver fills in his daily mileage, notes his vehicle checks, shows what repairs are needed. He keeps the original in his book, turns in the card stock duplicate to the shop office. The garage foreman enters gasoline, oil, and lube costs.

The "Keysort" cards are then summarized at the end of each week at company headquarters. The data are posted, by vehicle, to the Vehicle Cost Ledger and Vehicle Cost Journal.

The Work Order has four parts, the top three (paper with carbon backing) and the bottom one the punch card. It's prepared by the garage foreman. When the work's done, he keeps the original. It's filed in the garage office by truck number.

The rest of the set goes to the company office, along with packing lists, etc., from parts or equipment suppliers. The work order shows the unit worked on, the job done, parts used, and cost data for the job.

DATA PROCESSING AT COTTON'S BAKERY

MASTER COST RECORD

VEHICLE	DATE	TIME	WAGE	MATERIAL	REPAIR	TOTAL
54 22941	230	97	291	7.20	2	.46
48 62794	300	10.1	296	0.41	2.00	4.00
64 24201	270	10.	27	7.50	3	.47
				10.71	5.00	
						1.00
						11.56
						20.96
						25.20

DAILY INSPECTION REPORT

VEHICLE: 55 FORD 74 SMITH
 DATE: 10/1/56
 TIME: 10.1
 WAGE: 2.60
 MATERIAL: .46
 REPAIR: 1.00
 TOTAL: 3.96

OVERHAUL CLUTCH

VEHICLE: 64 74 246
 DATE: 10/1/56
 TIME: 2.00
 WAGE: 3.30
 MATERIAL: 1.81
 REPAIR: 1.21
 TOTAL: 6.32

VEHICLE COST JOURNAL

VEHICLE: 55 FORD 74
 DATE: 10/1/56
 TIME: 10.1
 WAGE: 2.60
 MATERIAL: .46
 REPAIR: 1.00
 TOTAL: 3.96

The office staff files its two paper copies of this form, along with other data from suppliers, alphabetically by supplier's name.

The fourth copy, the McBee "Keysort" card is held until the end of the week when it's combined with the Daily Inspection Report into a weekly summary.

The Vehicle Journal is prepared in duplicate. The original copy stays in the office. The fleet supervisor gets the duplicate. There's a line for each vehicle, showing cost summaries for the week with the specific items of cost.

It's reviewed by the comptroller and the office manager at headquarters as well as the fleet supervisor at the shop. With this weekly report, the fleet supervisor can spot unusual maintenance items in time to take corrective action.

While preparing the Journal, the clerk simultaneously posts the data on the fourth form—the Vehicle Master Cost Record. It's sum-

marized quarterly to show costs for the quarter and year-to-date totals for each vehicle.

This is a valuable management tool. With it, management has the facts needed to decide on trading-in vehicles, selecting replacement units.

It's also useful for maintenance control. A high oil consumption figure, for example, shows the vehicle needs service.

Work order copies showing purchased parts are pulled from the files at the end of the month. Totals for each supplier are found, a voucher check prepared, and the forms attached to the check to show the supplier the items which it covers.

The system has many advantages. It provides faster reports, makes data available that weren't available under the former system.

It's set up to provide weekly balances against receipts for outside purchases, receiving reports, gasoline pump readings, etc. And it's simple.



Form 206 Rev. 11-1-56	VIRGINIA TRAMWAY COMPANY - RICHMOND GARAGE REPAIR SERVICE ORDER	Job No. 1324
Name <u>ARMSTRONG BUS LINES</u>	Address <u>519 W. GARRARD ST</u>	
Phone <u>None</u>	Date Ordered <u> </u>	Date Completed <u> </u>

C.D. MATERIAL REQUIRED				LABOR							
QTY	Description	Cost		Material	Date	Account	Hours	Tram	Truck	Cost	
		Unit	Company Amt't							Tram	Truck
1/6	TRUCK REPAIR			1/6	11/24/56	TRUCK REPAIR	5.25			4.00	7.25
2	TRUCK WHEELS		1.00	2	11/24/56	TRUCK WHEELS		2.00		4.00	6.00
2	TRUCK TUBS		1.00	2	11/24/56	TRUCK TUBS		2.00		4.00	6.00
2	TRUCK SPRINGS		1.00	2	11/24/56	TRUCK SPRINGS		2.00		4.00	6.00
4	TRUCK AXLES		1.00	4	11/24/56	TRUCK AXLES		4.00		8.00	12.00
			1.75								
							6.50			12.96	19.46

VIRGINIA TRAMWAY COMPANY - RICHMOND			
Debit		Credit	
Account	Amount	Account	Amount
1027.04 Labor (Truck Cost)	50.97	1304 Labor (Tramway Rate)	
1027.05 Material - S.D. (Truck Cost)	17.75	1305 Labor (Tramway Rate)	15.96
		1306 Material - S.D. (Truck Cost)	
		1307 Material - S.D. (Truck Cost)	17.56
		1308.07 Differences Between Road & Shop - Shows & Travel	7.13

RICHMOND PRICE REGULAR COMPANY			
Account		Amount	
1027.02 Accounts Receivable	146.00	1220.14 Gross Sales - Labor	37.50
		1220.15 Gross Sales - Material	118.70

[illegible]

Account for Every Penny and Outside Truck Maintenance

profits went down ▼ Virginia Transit stemmed the tide with faster fact handling

▼ DOWN TO THE PENNY cost control is the goal of any fleet management man. For a bus man, it's vital.

Virginia Transit Co. gets it. How? By combining accounting machines with multiple forms and simple punch cards. Result: Tight control over costs.

The machines have a big job

The organization includes Virginia Transit Co. (with Richmond and Norfolk divisions), Portsmouth Transit Co., and truck repair companies in Richmond, Norfolk and Portsmouth. Gross revenue in 1958 was \$8½ million plus. It came from 496 transit buses in the three cities, 17 buses running under contract to the Elizabeth River Tunnel Commission, and the three "outside maintenance" firms.

Machine accounting wasn't new to the fleet in 1955 when the new system was started. Payrolls had been machine-handled since the company was organized in 1944. But that's all. And it wasn't enough.

By '55 the cost-profit squeeze was really hurting. Other cost-cutting ideas were tried. Staffs were trimmed. The Accounting Dept. was down to minimum size. Still the problem: Cut costs.

Machines got the green light. After study, the National Cash Register Class 3100 Accounting Machine was chosen. Plans called for three. Now there are four. Total machine purchase cost: About \$30,000. Sounds high? Savings in one year in General Office salaries alone more than cover it. And individual salaries are up 20 per cent. Now a staff of 12 does what work than 24 did before.

But Accounting Dept. dollar savings are only part of the story. Important, yes. But still only part. There are many others. They can be summed up in a few words: Fast, accurate cost-data handling.

Fleet mileage records were first to be machine processed. That was in August, 1955. In January 1956 the second machine arrived. It took

payroll. Experience with these two units made it possible to transfer the General Ledger and all subsidiary books of Portsmouth Transit Co. to the third machine.

Inventory control was next. It wasn't easy. It needed a fourth machine. But it was worth the effort. Now the 20,000 items in the Richmond and Norfolk stores are logged on a single card for each item at headquarters. Portsmouth will be added this year. Storekeepers and Mechanical Department send multi-purpose forms to the Accounting Department daily. The next day the storekeeper receives—on no more than two sheets of paper—a complete report of the previous day's parts activity. Items falling below minimum stock requirements are automatically flagged by the machines.

One big advantage of central inventory control: Parts in short supply at one storeroom can be transferred from the other. Another: It's fast. One experienced clerk can post two days' issues, receipts and orders for both stores in a single day.

The machines took a load off the Mechanical Dept. Before them, two employees in the mechanical office kept the bus mileage records. Now one clerk does the job faster at headquarters. Here's what happens . . .

It starts with the Schedule Dept.

Here a dittoed sheet is prepared showing AM and PM schedules. The sheet shows the time of departure, train number (identifying number on the line) the line number, scheduled mileage and the type of equipment to be assigned. A sign-up clerk fills in the bus numbers.

Both schedules then go to the dispatcher's office. The night dispatcher posts mileage shown for each bus to a Daily Fuel, Oil, and Mileage Work Sheet. Buses are listed in numerical order. Any changes from schedules are noted. The Work Sheet thus shows the total real miles for each bus.

(TURN TO NEXT PAGE, PLEASE)

Outside Truck Maintenance

Continued from page 109

At each fuel pump there's a gasoline and oil report. The data on this form is posted to the Work Sheet as a full-time activity by a Money Room clerk. Oil changes are reported directly from the Mechanical Dept. to the Accounting Dept. each day.

Running costs are posted daily. But summary reports are made only weekly. More frequent summaries were found unnecessary. It takes two days on the machines for the summary.

There's also a monthly report. It keeps interested managers informed on individual vehicle performance, also is certified to the company's tire supplier for mileage contract purposes.

The company's proud of its system for handling paperwork in its outside maintenance (truck repair) companies. Since the system cuts across most phases of data handling, it's a good way to see how the machines pay off.

Let's let Secretary-Treasurer J. H. Armstrong tell the story.

"We believe that we have reduced the bookkeeping for this work to a very minimum. A pre-numbered Shop Order is prepared in triplicate in the Mechanical Office. We then use a Work Sheet to breakdown the cost items on the finished Shop order by the various accounts.

"The customer receives the original copy of the Shop Order as his invoice when the job is completed. The Mechanical Office keeps one copy, on card stock, for its own records. The third copy, with the Work Sheet, goes to the Accounting Dept.

"Each of our three truck companies has an agreement with 'Transit' covering the rates to be charged for "inside" service. These rates are lower than those charged to customers and are adjusted quarterly. The machines are a help in calculating these adjustments.

"The total cost of the job is shown by accounts on the Work Sheet. With this information a Journal Sheet, in duplicate, is inserted in the machine. It takes only one operation to prepare a Customer Statement and a Ledger Card.

"After all postings have been made, the machine then prints totals on the Distribution Sheet. These totals are accumulated by the machine during the posting. One copy of the Distribution Sheet is split in half. The left side is used for the charge to the truck repair subsidiary, the right side is used to prepare a journal entry charging Accounts Receiv-

able customers and crediting sales—split between labor and material."

Punch cards were mentioned as part of the system. They're Royal-McBee "Keysort" cards and they're used in several ways.

When the Purchasing Dept. writes an order to replenish stock, a card is prepared. It shows the purchase order number, date, class number, quantity ordered and vendor. It's sent to the Accounting Dept. where it's held until the invoice for the item comes in.

An accounting clerk then pulls the original card and marks the date the item came in, quantity, and invoice amount. The cards are then sorted into Class Number order. From these cards a clerk posts the Inventory Ledger Card. The Ledger Card is later used in the average-unit-price system as part of the Inventory control.

Issues are also made on a punch card. It's punched for class number and account number. As the issues are posted the clerk pencils on the unit value. The card is later extended. Daily totals by account numbers are accumulated for the journal entry. This information is furnished daily to the Mechanical departments for charting their budget graphs.

In general, Virginia Transit gets all the benefits of any good data processing system. Fast, accurate reports; minimum effort needed to prepare internal reports and those demanded by local and federal governments.

Maybe the machines won't solve the problems of reduced passenger volume, but they do permit the properties to operate more efficiently.

When machine operator posts totals from the Work Sheet to the Journal, both the Customer's Statement and Ledger Accounts Receivable page are printed at same time

NAME		ADDRESS		SHEET NO.		DATE		BALANCE		PREVIOUS BALANCE	
Richmond Bus Lines		519 W. Broad Street		14660		14660		14660		14660	
Richmond, Virginia		Richmond, Virginia		14660		14660		14660		14660	
DATE		Folio		DEBIT		CREDIT		BALANCE		PREVIOUS BALANCE	
APR 30		65		14660		14660		14660		14660	
APR 30		65		14660		14660		14660		14660	

DATE		REFERENCE		CHARGE		CREDIT		BALANCE	
APR 30		65		14660		14660		14660	
APR 30		65		14660		14660		14660	

How a Small Fleet

Gets "Mechanized" Facts

Four low-cost machines meet present needs, more can be added later

YOU DON'T HAVE TO spend a lot to handle data efficiently.

Small truck operators sometimes overlook this fact. One didn't. That's Masten Transportation, Milford, Del.

Masten runs 57 power units and 77 semi's out of seven terminals. The routes go through five states and the District of Columbia. It's a growing fleet. And efficient cost control is one reason why it expects to keep growing.

Assistant Treasurer Gilbert V. Wilkins puts it this way. . . .

"Our four simple machines provide management with the complete, timely, accurate information needed to run our fleet with maximum return on investment. That is all any data processing system is supposed to do."

Masten's system is Remington-Rand's basic "Low/Cost" system. It includes a punch, reproducing punch, sorter and tabulator. Punches prepare cards, the sorter arranges them in any desired order, the tabulator prints the results. The system works at a speed of one card a second. It can be speeded up, and additional machines can be added as needed.

Here's how it's used:

Each terminal sends its freight bills to headquarters daily. During the night the punch operator puts the information on cards. Cards are sorted and tabulated. The report for management is ready by the afternoon.

The same cards have other uses. They're used to prepare accounts receivable and accounts payable statements for customers and interline accounts. The statements are "aged" automatically, with delinquent accounts brought up-to-date each month.

The "aging" report used to be made up every three months before the machines were used. Reason: The high time cost needed to do it manually. Now it takes two hours for the whole report.

A variety of uses are found for data on the reports. Among them: sales and traffic analysis, sales staff efficiency studies, equipment-need forecasts, studies of interline shipments. In all cases, the speed of producing the needed reports more than justifies the investment in the machines.

Driver trip report data is now carded for fast preparation of ICC reports. This phase will soon be expanded to gather data for a monthly maintenance-cost-to-revenue comparison report. It will include labor, gas, tires, repairs, parts, and all other expenses of running the trucks.

Masten expects to expand its machine system. Units will be added as the work volume increases. Some day, says Wilkins, an electronics system may be needed. When that happens, experience gained now will be invaluable. In the meantime, the fleet runs smoothly on decisions based on "mechanized" facts.

Masten management gets next-day reports. Shown at the Remington-Rand printing tabulator are Asst. Treas. G. V. Wilkins (right) and Office Mgr. Harvey Williams



At ADLEY EXPRESS

When the Boss Wants to Know,

Two hours for a fleet summary, 50 minutes for ton-mile taxes,



Program boards tell RAMAC what to do. Boards now used cover fleet costs, ton-mile taxes, gas and oil costs, payroll, sales, tonnage and revenue. More will be added

V TOP MANAGEMENT WANTS fast, concise reports. Tell me about it fast says Mr. President. . . . And he isn't kidding!

At Adley Express, New Haven, Conn., the management team gets the reports it wants, when it wants them. The reports can be short, or deep in detail. Either way, they're accurate and on time.

What do the reports cover?

Almost anything. Adley has used machine accounting for more than 20 years. In that time there has been constant effort to make maximum use of the machines' ability.

But now there's something new. And it's revolutionizing the fleet's cost and operating reports.

The "something new" is a RAMAC 305 computer by IBM. In service for less than a year, it's doing a big job. It will have more to do later.

Ask Controller Frank DeMayo how he likes it. He uses glowing terms. Here's why: It will produce a

complete fleet cost report in less than two hours (see form illustrated). Since the fleet includes more than 1200 vehicles, that's no small chore.

RAMAC can calculate faster than your wife can jump to a conclusion. Adley's has a small "memory"—only five million digits. Bigger memories are available. Adley expects to get one later.

RAMAC is a random-access unit. That means that data can be put in or taken out in any order. The machine takes care of putting it in proper order. Adley uses punch cards, but tape can also be used to feed data in. It comes out in printed form.

Here's a quick rundown on

what the computer does now and what's ahead for it. . . .

A punch card is made from each waybill (pro). RAMAC calculates the charge (rate x weight), turns it over to other accounting machines for billing and recording. As a by-product from the data thus fed into its memory, RAMAC turns out the (1) Tonnage and Revenue Report and (2) Sales Analysis Report.

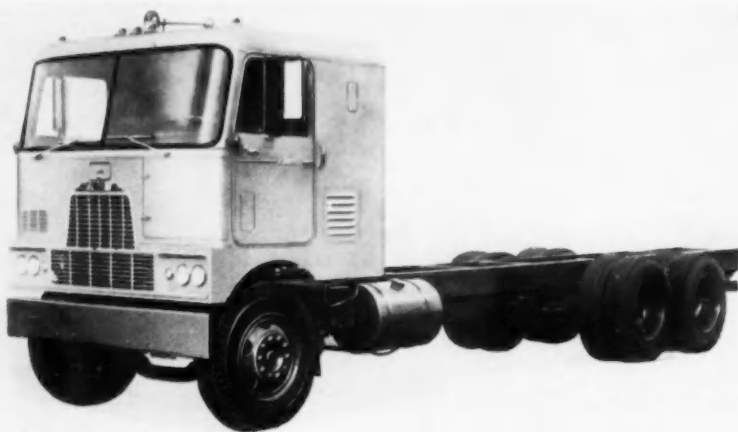
The firm handles about 30,000 pro's a week. Even with its former mechanized system it took several steps to produce these reports. RAMAC makes it a simple, almost automatic procedure. For example: Less than two hours for the Sales Analysis Report.

Fuel and oil reports used to

go through five steps. These have been replaced with a simple routine. Each terminal sends daily reports to headquarters. Data goes on punch cards, into the memory. In RAMAC it's automatically priced and filed. For the weekly report to management, the computer determines and prints costs for the previous week and total to date. This can be obtained for any individual vehicle or group of vehicles.

New York State's Ton-Mile Tax requires a monthly report to the state. It shows total trips and mileage and weight for each truck. Before RAMAC, it took about half a day to produce this report. Now it takes about 50 min.

[illegible]



Styling of Mack's new G series is shown here in this six-wheeler equipped with a sleeper cab. BBC on this model is 80 in. Engines include both Mack and Cummins diesels ranging to 220 hp.

Mack Offers 51-in. Cab in New G Series

**Series includes both
four and six-wheel models
with GCW up to 76,800 lb.
Sleeper cab has 80 in. BBC**

Brief Specifications — Mack G Series

Model No.	Engine	Wheelbase (in.)	Overall Length (in.)	CA Dimension (in.)	
				51-in. BBC Standard Cab	80-in. BBC Sleeper Cab
4-WHEELERS					
G-73LT	NH220L NT88L ¹ ENDL673 ENDLT673	116 $\frac{1}{2}$	176 $\frac{1}{2}$	92 $\frac{1}{2}$	63 $\frac{1}{2}$
G-733LT				OR (optional)	
G-75LT					
G-753LT		206	392		155 $\frac{1}{2}$
6-WHEELERS					
G-73LST	NH220L NT88L ¹ ENDL673 ENDLT673	143 ²	218 $\frac{1}{2}$	119 $\frac{1}{2}$	90 $\frac{1}{2}$
G-733LST		156 ³	231 $\frac{1}{2}$	132 $\frac{1}{2}$	103 $\frac{1}{2}$
G-75LST		186 ⁴	320	162 $\frac{1}{2}$	133 $\frac{1}{2}$
G-753LST		244 ⁴	392	220 $\frac{1}{2}$	191 $\frac{1}{2}$

¹—NT88L optional. ²—Standard on G-75LST and G-753LST. Not available on other models. ³—Standard on G-73LST and G-733LST. ⁴—Optional on other models.

MACK HAS ENTERED the short BBC race with a 51-in. cab. It's featured on the maker's new G Series. (Also included is an 80-in. BBC sleeper cab with 30-in. mattress shelf.)

There are eight basic trucks in the Series . . . four 4-wheelers and four 6-wheelers. They're rated up to 76,800 lb. GCW. Optional wheelbases extend the line to 22 models—straight trucks or tractors.

They're a lightweight Series.

Four-wheelers range from 10,175 lb to 10,555 lb. Six-wheelers, with fewer aluminum components and an added drive axle, range from 13,340 to 13,715 lb.

Standard aluminum components on the 4-wheelers include front bumper, cab, engine front support and rear brackets, transmission main case, front and rear

spring brackets, air reservoir, front and rear brake chamber brackets, spiders and shoes, rear axle carrier housing, radiator upper and lower tank and side plates.

On Mack diesel-powered models, other standard aluminum components include engine flywheel housing, front and rear water manifolds, inlet and outlet water fittings, valve lifter covers, cylinder head covers, lower crankcase. Aluminum components on the Cummins diesels offered include flywheel housing and front gear cover.

Optional on both 4-wheeler and 6-wheeler models are an aluminum frame, aluminum wheels.

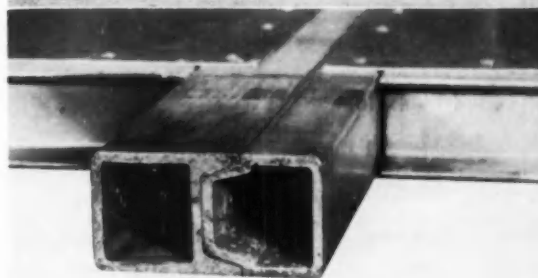
Engine tunnel of the new cab

serves as a rigid backbone between front and rear sills.

(TURN TO PAGE 148, PLEASE)



Top view shows how side panels stack compactly at front end when trailer is used as a flatbed. Panels weigh 45 lb each, make conversion to open-top (above) a one-man



515

job. Top view here shows trailer fully converted to an open-top. This model has sliding tandem on its "J-Rail." Bottom view shows how interlocking panels get strength

Trailmobile Designs New Convertible Flatbed

Aluminum side panels interlock, drop into stake pockets to make an open-top van. "J-Rail" frame beams incorporate T-1 steel to give new model strength and light weight

V IS THERE A CONVERTIBLE in your future? A convertible trailer that is. Trailmobile's got one, calls it a "J-Rail" model.

Basically it's a flatbed trailer, convertible to an open-top van. Body sections are aluminum, 4 ft wide with a 1½ x 3-in. hollow-center, aluminum stake on each side. Stakes are of interlocking design, fit into pockets in the trailer bed.

Nose section is bolted permanently in place, serves

as a storage spot for the sidewall sections when the trailer is used as a flatbed. The sections weigh about 45 lb each, so conversion to open-top is a one-man job.

As on open-top, the trailer is water proof due to (1) the interlocking of the sections and (2) bottom of side panels being below floor level when erected.

(TURN TO PAGE 148, PLEASE)

First of Dodge's New Diesel Series Goes on Display

**It has the Cummins NH220 engine
and a 10-speed RoadRanger transmission.**

GCW rating is 76,800 lb

V FIRST OF DODGE'S new diesel truck series goes on display middle of this month. Oil men attending the International Petroleum Exposition in Tulsa, Okla., get the first look. Here's what they'll see . . .

As pictured below, it's a big one—76,800 lb GCW. Engine is a Cummins NH220 (220 hp). It tips the scale in the neighborhood of 10,000 lb.

It carries the Model No. NCT1000. When it comes to measurements, the vital statistics are . . .

- Wheelbase—158 in.
- BBC (bumper-to-back-of-cab)—89¾ in.
- CA (back-of-cab-to-center-line-between-rear-axles)—96 in.

Power train includes

a Fuller 10-speed R96 RoadRanger transmission, a 38,000-lb capacity Timken SQHD rear bogie. Front axle is also Timken, is rated at 11,000 lb.

Rest of Dodge's diesel line won't be ready for display until this fall. For the present, it's a question of getting final production plans going. This much, in a nutshell, is what's known . . .

Four Cummins diesels will be offered in three basic truck models—with a wide choice of options.

In addition to the NH220, engines will include the 180 and 195-hp models in the NH Series. Fourth en-

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CCJ CONSTRUCTION FLEET MAINTENANCE



Compiled by the Editors of COMMERCIAL CAR JOURNAL

AT YOUR SERVICE...

Shop safety by preventing an accident cuts lost time. Here are places it often does its biggest but unseen work.

- Garages and repair shops should be well ventilated to guard against carbon monoxide gas from running engines. If the shop is not well ventilated, the equipment should be driven outside as soon as the engine is started.

- Shop employees should be encouraged to wear safety shoes and each should be furnished a pair of goggles. These goggles should be in their possession at all times. They should be required to wear them on jobs where an eye hazard exists.

- Gasoline should not be used for cleaning purposes. Kerosene or other high flash point solvents—such as trichlorethylene or perchlorethylene—should be used for cleaning metals parts. Commercial floor cleaning compounds should be used for cleaning grease and oil from floors. Under no circumstances should grease or oil be covered with sawdust.

- Due to the extreme flammability of gasoline vapor, and the possibility of spontaneous combustion in oil-soaked rags and waste, precautions should be taken to prevent such fires and to quickly bring them under control once they have started. Rags, waste or trash should not be allowed to accumulate anywhere except in fireproof containers designed for the purpose.

- Crankcase oil should be removed to a safe place as soon as it is drained from the engine, and benches and floors should be kept as free of oil as possible. Fire fighting apparatus should be well distributed with the locations conspicuously marked. (From AGA.)

Fuel filters that are not installed and serviced correctly can reduce an engine's power output and thus decrease equipment performance, says Euclid. Poor fuel filter installation and servicing lets air leak into the fuel system. This robs the engine of power by preventing full fuel delivery to the injectors. Any air that gets into the fuel system must, of course, displace an equal volume of fuel. Obviously, fuel displaced by air in the injectors means that something less than a full charge of fuel will be injected into the cylinders during the power

stroke. This means that less than full power will be delivered by the piston during that particular power stroke. Multiply this loss by the number of cylinders in the engine and the total loss of power quickly adds up.

Fuel filter air leaks can be prevented by checking to make sure that the following connections are air tight when installing or servicing fuel filters . . . filter inlet and outlet connections (especially on the suction side of the filters), filter drain cock, filter body retaining bolt seal, filter body to head gasket.

When you store earthmoving equipment, Caterpillar says, internal surfaces of the engine should be kept coated with oil either by periodically operating the engines, or by spraying with a preservative oil. Regular attention to this matter is particularly important because of the parts having machined surfaces. Oil tends to drain from these smooth surfaces more readily than from rougher surfaces.

Fuel tanks of both the gasoline starting engine and the diesel engine should be protected. The starting engine tank should be filled completely with gasoline containing a gum stabilizing additive. The diesel tank should be filled with fuel to which enough preservative lubricating oil has been added to achieve a three per cent mixture.

Recondition your cylinder liners on Caterpillar engines whenever it's possible. You'll cut costs considerably if you do. Of course, you must replace liners which are severely scratched and scored on the inside or badly corroded on the outside.

The limiting factor is the amount of wear left. Measure wear near the top of ring travel. If it exceeds the maximum diameter wear limit shown in the chart below, you should replace the liner.

CAT ENGINE BORE INCHES	DIAMETER OF NEW LINER	MAXIMUM DIAMETER WEAR LIMIT
3 ³ / ₄	3.750-3.751	3.765-3.766
4	4.000-4.001	4.015-4.016
4 ¹ / ₄	4.250-4.251	4.265-4.266
4 ¹ / ₂	4.500-4.501	4.515-4.516
5 ¹ / ₈	5.125-5.126	5.145-5.146
5 ¹ / ₄	5.250-5.251	5.270-5.271
5 ³ / ₄	5.750-5.751	5.770-5.771
6 ¹ / ₄	6.250-6.251	6.270-6.271



For Better Maintenance

Put a Portable Base

It gives more maintenance flexibility, keeps equipment on the job longer with

By L. H. Houck

Mechanic's truck has winch and shop-built adjustable boom. Dolly under front of two-wheel Cat tractor permits taking tractor to shop instead of whole tractor-scraper combination



WHEN THE JOB IS in Sedalia, Mo., why have the base shop back at headquarters in Keokuk, Iowa?

Cameron, Joyce & Co. has a standing answer to this question: It has designed a portable base shop, erects it on the job.

Advantages are . . .

no lost equipment time shuttling to and from headquarters, more maintenance flexibility, more equipment utilization on the job.

The master mechanic on the job supervises the maintenance of equipment. He can keep it operating longer without pulling it out for repairs, since they can be made on the job and often on the spot.

He and his maintenance staff devote their attention on good-weather working days to running maintenance and PM, noting need for major repairs on equipment. They then pull the machines into the shop on rainy days. During periods of bad weather the fleet gets overhauls, repairs, welding, paint and other care.



Here's the portable "main" shop completely assembled. Sides are made in 8-ft sections. Trailer at rear holds parts for scrapers and travels with the fleet to all construction sites



One corner of the portable shop is the "office." Wiring and lights are built into the side panels and plug together after shop is erected. Entire building is put up in two days

Shop on the Job

fewer trips back to headquarters

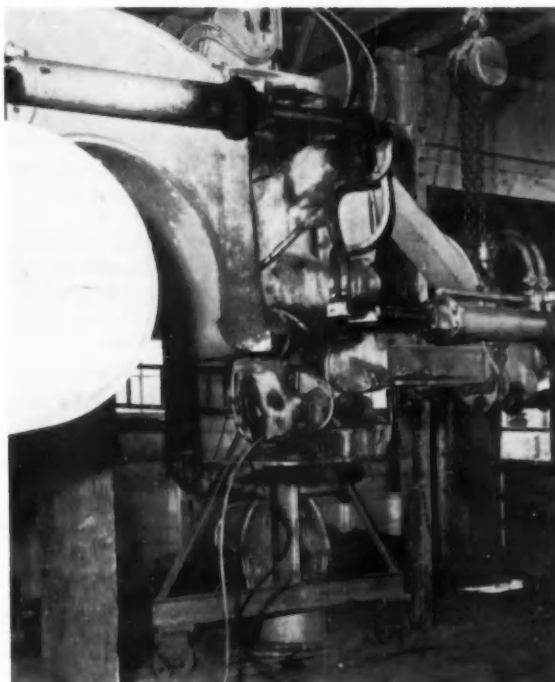
Summed up, maintenance and repair costs are less, and equipment spends more hours at profitable work.

The sample operation here is the Cameron, Joyce & Co. grading job on U. S. 50 west of Sedalia, Mo., where W. R. Thomas is the master mechanic. Job consisted of nine miles of grading now completed. It started last summer, ran through the winter, was finished this spring. During the winter the main shop handled overhauls and new paint jobs so when construction opened up in the spring, the equipment was in top condition.

The portable shop building is made of 1 x 12-in. wood siding, 2 x 4's and 4 x 4's. It is 48 ft long and 38 ft wide. It erects or dismantles in 8 x 8-ft sections which bolt to each other with 1/2-in. bolts four inches long. Even the roof of 2 x 12's and 2 x 4's and covered with roofing paper, dismantles into the 8 x 8-ft sections.

Three experienced men can unload the building
(TURN TO NEXT PAGE, PLEASE)

Shop's gantry (wheels and track at bottom), team up with I-beam-mounted chain hoist to lift front end of DW-21 scraper. Post at left carries part of the weight for added safety



... Put a Portable Shop on the Job

Continued from Page C3

from a truck and have it completely erected in two days.

When a shop is dismantled, the roof section lines covered with roofing paper are cut with a sharp knife. When erected, a strip of roofing material is placed over the seams with roofing cement.

This size shop building makes a light load for a two-ton truck, Thomas says.

Delays in speedy erection due to digging footings and pouring concrete are eliminated. No concrete foundations are used. Roof and rafters are supported by 4 x 4-in. vertical wood posts or columns. These are based on wood blocks 8 x 8 x 12 in. set on edge in a hole in the ground with tops leveled. On this particular building, there are seven of these posts on each side.

Need for supporting hoists and

equipment from the roof rafters is eliminated by the use of a traveling gantry from which runs on a pair of 8-in. wheels on each side in a 4-in. steel channel. This channel is secured to 6 x 6-in. wood beams the length of the track which is the length of the building.

The gantry is a product of the shop crew, being made of standard steel beams. Hoist has aluminum case for lightness, travels on an I-beam from one side or leg of the gantry to the other.

Building is provided with large

double doors in each end. Equipment delivered to the door can be handled from there with the gantry which usually is equipped with a 1½-ton chain hoist.

Doors provide a 12-ft opening using two 6-ft sliding sections. Two small doors are also in each end for man traffic. There are six windows in each side and two in each end.

Even the electric wiring

is portable. Wiring remains on each 8-ft section and joins the next section with heavy duty receptacle and plug. These couplings remain with the sections. Large stove for heating in winter is part of the assembly as are a number of heavy wood work benches.

Tools, welding outfits and small parts are perma-

nently assigned to mechanic's trucks. Each of these are equipped with an adjustable boom and hoist.

Parts stock for equipment is handled

in full size over-the-road trailers. These parts trailers are assigned to certain pieces of equipment—such as a fleet of scrapers—so when the scrapers are assigned to the job, the parts trailer goes with them. This assures the portable base shop on the job that the parts for equipment are available.

Complete overhauls—transmission, engine, torque converter and so on—are handled on the job. The policy is to work all the equipment as long as it can be worked without damage. When rain stops a job, equipment (with needs already noted and put in the job book by mechanics) is scheduled for immediate shop work.



W. R. Thomas is a master mechanic for Cameron, Joyce & Co. Electric drill he is holding is part of the equipment on the mechanic's service truck

Small parts are kept in trays in the service truck. Come moving time when the shop is dismantled, there is no confusion over who's tools are who's

M. A. Hanna Co. operates about 25 open pit mines in the Mesabi and Cuyuna iron ore ranges in Minnesota. Ore goes from pit shove to screening plant via truck. Grades are usually at a minimum with length of haul from $\frac{3}{4}$ to $1\frac{1}{4}$ miles a round trip. Roads are well established and maintained in good condition. Total fleet numbers over 200 off-highway end-dump trucks. They range in age from 1947 to 1955 models, from 35,000 to

10,000 in operating hours. Says Hanna, experience proves a truck with 30,000 hours can operate as cheaply as one with 15,000 hours if kept modified and up-to-date as possible.

In this article—excerpted from his report at last month's Earthmovers' Conference in Peoria, Ill.—Hanna fleetman L. J. Morgan says, when it comes to truck performance . . .

Some Improvements Are Needed in OFF-HIGHWAY TRUCK DESIGN

NATURALLY, ONE of the prime objectives in any successful business is to lower costs. Because Hanna's truck fleet is large, one logical place to cut our expense is in haulage equipment. Factors in this saving would be new design giving larger capacity, better performance and lower maintenance costs.

Tires are, by far, our biggest expense. They account for about 35 per cent of our truck operating costs! The introduction of nylon cord has helped. High profile tires are advantageous on short, relatively slower speed hauls. Tubeless tires appear to be a step in the right direction.

Past experience indicates that certain changes in design should alleviate some of the present tire problems. For example, a truck mounted on single tires rather than duals would reduce the per cent of premature tire carcass failures.

A greater tire safety factor would be an attractive addition to truck design. Even though many present models show what appears to be a reasonable factor, beefing-up weak points by both the manufacturer as well as the operator, increase the tare weight considerably. The weight of one model truck in our fleet has increased 15 per cent in five years. With this, the manufacturer's original safety factor was no longer adequate.

A situation faced every 24 hours is a tire inflation check. It takes a man about six hours to check the 200 tires on a fleet of 20 tandem-axle trucks. It also deducts four hours from truck production time. In most cases, two to four per cent of the tires checked must return to the shop for inflation, increasing the lost production time. These facts prompt a strong recommendation for a tire design requiring weekly and not daily inflation checks.

A tire capable of withstanding high heat on long haul jobs is badly needed. Because of tire heat, we were forced to reduce a fleet from 35 to 20 miles per hour. The haul was 10 miles round trip and the fast-

er speed, if trouble free, would have required less trucks and meant lower costs. A skinned down tire although preventing heat, will not do the required job in the pit and dump areas.

Our greatest need is for an air cooled diesel capable of meeting the horsepower, performance, weight and size of our present liquid cooled engine. During the winter months, our trucks operate without anti-freeze. On jobs working five days, radiators must be drained on Saturday and refilled on Monday if adequate storage is not available. In the event of engine failure in the pit during the winter, the truck must be towed immediately to the shop or drained.

Turbocharging is the present approach to higher horsepower, but what about maintenance? We become somewhat apprehensive about turbocharging when we read about fuel compensating devices, after-coolers, exhaust waste gateing and other components it may require to give satisfactory performance. Some maintenance manuals call for 1000 hour turbo inspection and 3000 hour turbo rebuilding. Both require down time. External plumbing also becomes more complicated, increasing potential failure.

A better brake system is desired. Operating in mud and water, as we are required to do at times, adversely affects brakes. The ideal situation would be a self-adjusting, totally enclosed brake. Favorable experience with an oil clutch on crawler tractors leads to the belief that an approach to better brakes along this line might prove worthwhile. The aircraft type brake now being used by some manufacturers might also lead to substantial advancement.

Full power steering functioning adequately through the full range of engine rpm is something that would help. With our present system, driver dissatisfaction and steering complaints crop up under downhill and

(TURN TO NEXT PAGE, PLEASE)



A Half-Million Pounds on Wheels!

Bigge Drayage Co., San Leandro, Cal., recently moved a 250-ton stator-generator nine miles in five days. Actually, the moving was done in one day, the other four were spent loading and unloading. A total of 94 wheels (count 'em) move and brake the giant-size load. Last year the fleet converted many of its heavy-haulers to LP Gas, says the new fuel has reduced maintenance costs by one-half. Major engine overhauls are less frequent since LP Gas leaves no carbon. This is particularly important when there is a lot of engine idling.

Improvements Are Needed in Off-Highway Truck Design

Continued from page C5

idle speed conditions. The desired system should be one that can be removed as a component and repaired on the bench while the truck is out hauling.

The switch to the converter and semi-automatic transmission was a big step forward for our operations. What was lost in increased fuel consumption was gained by reduction in maintenance and better performance. Coupling this system into one package should also further reduce costs by simplifying the plumbing complications and failures.

A torque converter is a relatively inefficient unit, testified to by the appearance of more and more direct drive lock-ups. It is also a more troublesome maintenance item than the transmission behind it. We would like a full power shift transmission, incorporating an adequate number of ratios capable of successful per-

formance without the need for a fluid member to handle shock problems.

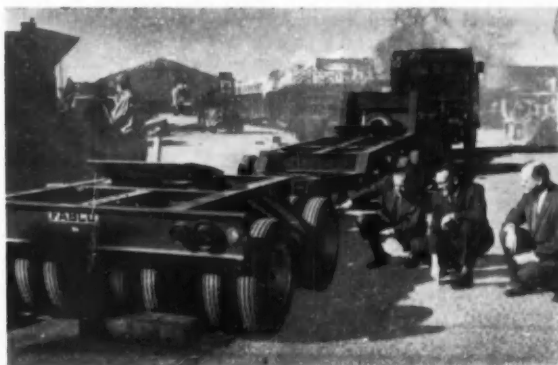
Some improvement can be made in the suspension system. The advent of fully sprung trucks some years ago created an additional maintenance problem. Under abusive types of hauls, suspension maintenance can become a large factor. It is true that sprung trucks solved the performance problems for which they were intended and that suspension characteristics are desirable in an off-highway vehicle.

One model truck we presently operate has over 500 ft of air and hydraulic plumbing. This is 6000 in. of potential failure. Many plumbing failures result in component failures that can be expensive. So, as you can see, the situation has greater ramifications than appear at first glance. Some manufacturers have elimi-



Transformer Transporter has 32 Tires

This special low bed trailer is used by the Pacific Gas & Electric Co., Oakland, Cal., to move a mobile standby transformer weighing 96,000 lb. It's made by the F.A.B. Mfg. Co., Oakland and was jointly designed by F.A.B., Bigge Drayage Co. and P.G. & E. to provide emergency power anywhere. Gross weight is 111,500 lb. The 32 tires on the rig are from B. F. Goodrich, size 7.50-15, 12-ply Traction Express. An interesting steering device, designed by Henry Bigge, joins the front and rear units of the trailer to allow turning on a very tight radius.



nated part of this failure potential but, in my opinion, considerably more should be done. Among the things that appear to be needed are . . .

- Design as many components as possible to utilize internal plumbing passages.

- Develop a hose that has superior resistance to abrasion.

- Use heavy walled solid pipe adequately mounted and clamped where possible with junction block connections and short flexible hose to needed points.

- A line clamping system that has each line individually clamped.

Servicing is a preventive maintenance operation, but it's also a down time factor. A few years ago, trucks were in the shop every 24 hours for servicing . . . consisting primarily of air cleaner attention, drive line check, brake adjustment and greasing. As the operating areas got further from our shops, the time between service checks was necessarily increased. Recent air cleaner improvements have extended this. My feelings on brakes and drive lines have been made known.

◀ What Advantages Does a 2-hp Scraper Have?

Farmer James Novak says his "2-hp" scraper has three advantages over the rig behind it . . . it goes further on a bucket of oats, is quieter, can find its own way back to the "garage" at night. Its capacity is about a half cubic yard as compared to the 10½ of the "Michigan" behind it. For the Michigan rig, horsepower is 290—162 of its own, 128 for the Cat pusher (not shown). No man-hour cost comparisons were made!

Shop Designs Track Cylinder Pin Puller ▶

From the shops of Broward-Palm Beach Tractor Co., Pompano Beach, Fla., comes this track cylinder pin puller. Designed for light crawler tractors, Broward says it has cut track tear-down and replacement time from two hours to 30 min. Two steel plates welded on one end of the shaft form a clevis that bolts over the head of the cylinder pin. Heavy gear slides free on the shaft hitting against a steel plate welded across the free end of the shaft to provide the "bump" that pulls the pin. Two lengths of pipe welded to the gear serve as handles. Puller is usually operated by two men.



That leaves greasing. A truck not requiring greasing seems to be the best answer. This could be accomplished by using material for construction that has not only the strength required but also inherent lubricating and wear resistant qualities.

A few additional items could include:

- A cab that is comfortable but not streamlined to the point that it becomes difficult to maintain by body and fender men.

- More rugged door latches, window winds and other cab hardware.

- Use of cap screws in cab construction rather than sheet metal screws.

- Cab, hood and fender material that will not dent easily.

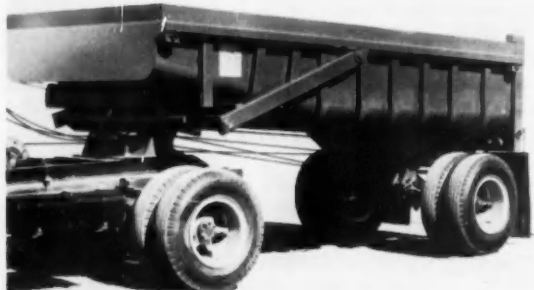
- Easy accessibility to all components.

A review of the improvements that have been suggested here points toward a two axle, overhung, articulating-type of truck similar in general design to the present overhung scraper. Gradeability problems however, will require the need for power on the trailing axle. Simplicity may dictate that other than conventional mechanical power transmission be used.

What's New...

Allis-Chalmers new portable generator is shown in a recently published catalog. Featured are design, engineering and construction highlights of the new lightweight Model No. G-226. The catalog (No. BU-412) is now available from the Engine-Material Handling Div., Allis-Chalmers Mfg. Co., Milwaukee 1, Wis.

The D9 Caterpillar Tractor is now equipped with lifetime lubricated track rollers, carrier rollers and idlers. Floating ring seals with metal-to-metal sealing surfaces eliminates all field lubrication. As a result, the new parts increase machine availability and lower maintenance costs through savings in manhours and materials.



Hobbs Trailers has introduced a new single axle cable dump model known as the A-9000. It is said to weigh up to 1000 lb less than similar 10-12 cu yd capacity units and has "unifized" body shell with wrap-around girders.

Yale Materials Handling Division of The Yale & Towne Mfg. Co. has published an informative, 20-page, two-color brochure on its Y-18 industrial tractor shovel.

Wisconsin Motor Corp. has announced a complete line of LP Gas engines. The line includes a full range of sizes from single and two-cyl models to larger V-type four-cyl jobs. Power ranges from 2½ to 55 hp. The engines are designed for operation either with a liquid or vapor withdrawal system.

This cutaway airflow diagram shows the new dry type air cleaner developed for Caterpillar Model Nos. DW 20 and DW 21 Tractors. Air enters stack cap, goes down into cyclonic precleaner, returns up through filter element and into inlet manifold of the diesel. The new type cleaner removes 99.8 per cent of all dirt from intake air.

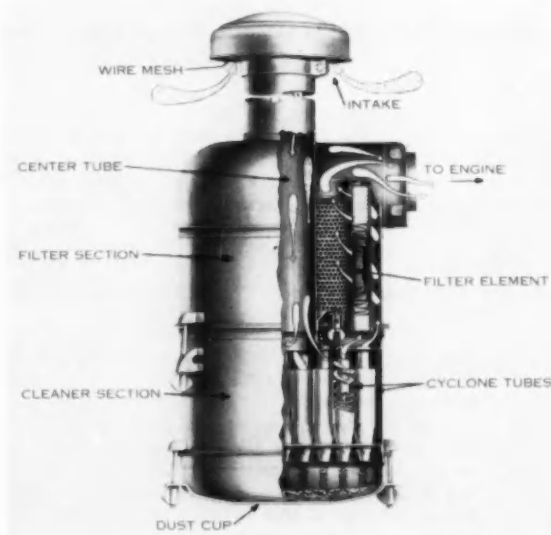


Here are five new all-aluminum "Transcrites" delivered recently to the North Star Sand & Gravel Co., Seattle, Wash. Units are built by Construction Mfg. Co., Waterloo, Iowa and weigh 1/3 as much as similar steel units.

Three new models of Deutz air-cooled diesel engines have been added to the existing line. These are 3, 4 and 6-cyl. vertical, inline engines, with bore and stroke of 3¾ x 4¾ in. The new engine models are an extension of the "small engine family" (612/712).

Explosion-proof hour meter, specifically designed for use on fork lift trucks, gasoline or diesel engines, generators or air compressors which might be located in hazardous locations is being made by the John W. Hobbs Corp., a division of Stewart-Warner Corp.

South Bend Division of Curtiss-Wright Corp. is now producing the Wooldridge line of construction equipment. Distributor sales and service organization is now expanding to cover a line of self-propelled and tractor-drawn scrapers for the heavy-duty field. Equipment ranges from 7 to 30 cu yd, with rear dump models in sizes up to 35-ton capacity.



NEW MILEAGE RECORD-BREAKER!



Fleets report the new Cross-Lug U. S. Royal Fleetmaster Dual-Purpose-Nylon outwears all in rugged highway service!

Right across the country, users say this great tire is establishing all kinds of new records for highway mileage. U. S. Royal built it to do just that. 60% deeper tread, of new "Maximum Mileage" compound, substantially increases wear, reduces per-mile tire costs. Big deep cross-lugs deliver 35%

more pull-power. Double-Strength Nylon cord **defies** impact blowouts. Test a set of these new U. S. Royal Dual-Purpose-Nylon Tires, in tubed or advanced tubeless construction. Call your U. S. Royal Dealer now. And make sure to specify "U. S. Royal" on the next new equipment you buy!

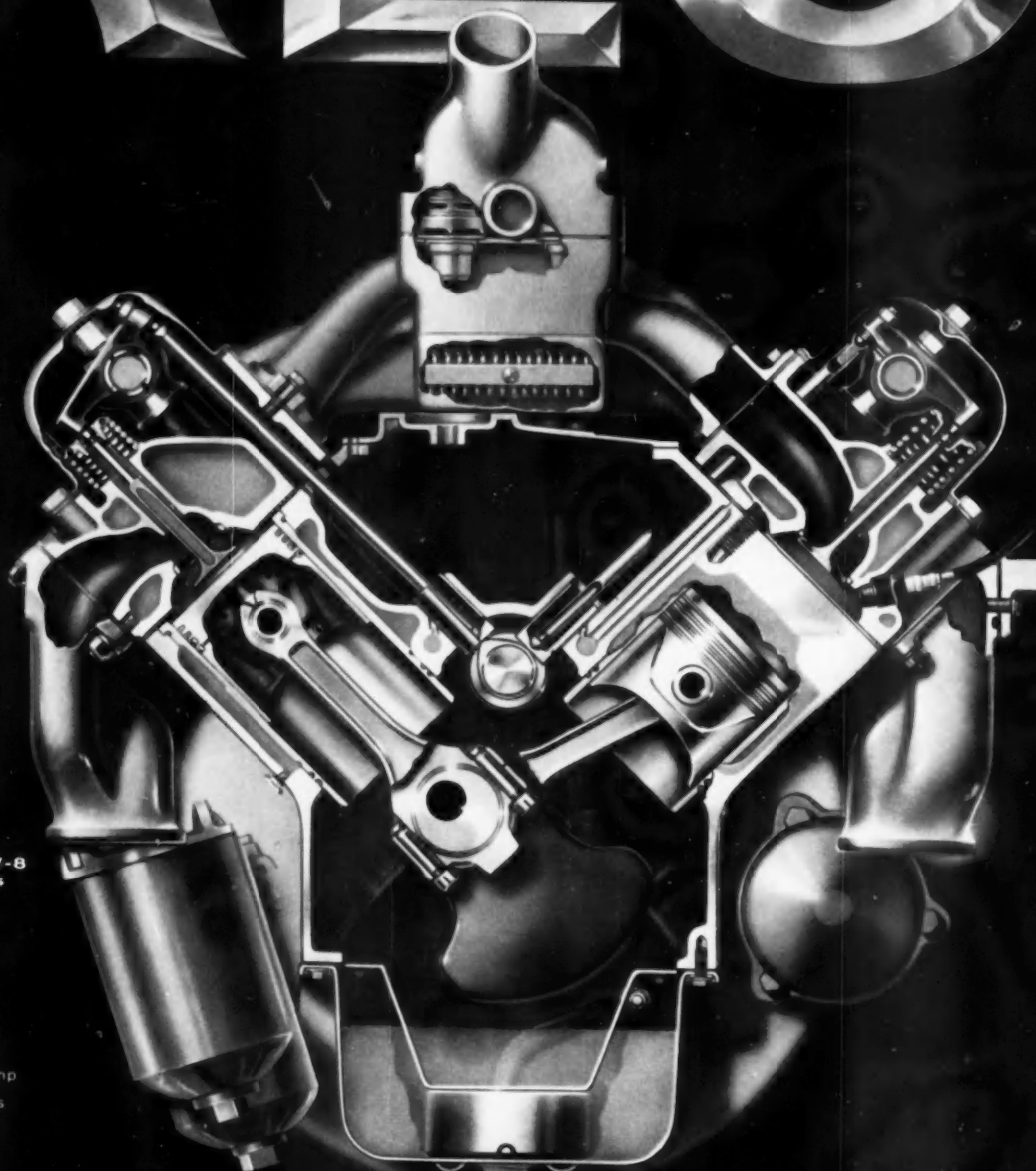
U.S. ROYAL TRUCK TIRES



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FREE



**Gold Comet V-8
—OV 235 Gas**

Brake hp:
235 @ 3400 rpm

Torque:
412 @ 2400 rpm

Bore: 4 1/8"

Stroke: 4 1/8"

Displacement:
440 cu. in.

Other V-8's: 207 hp
gasoline and 220
hp LP-Gas models
also available.



GOLD COMET truck engines

Only Reo offers replaceable "wet-sleeve" cylinders in a complete line of gasoline and LP-Gas engines for heavy hauling. Here's the big reason Gold Comets are first choice for high road mileage, or operations where engine miles far exceed chassis miles.

Reo's easily replaceable "wet-sleeves" eliminate costly reboring. This money-saving feature assures like-new engine efficiency throughout the lifetime of your truck.

For livelier power and continued high efficiency, buy the engine without an age limit. Sixes and V-8's in gasoline or LP-Gas for every use . . . in a rugged Reo truck built for the job.

Gold Comet Six—OH 185 Gas

Brake hp: 185 @ 3400 rpm

Torque: 320 @ 1200 rpm

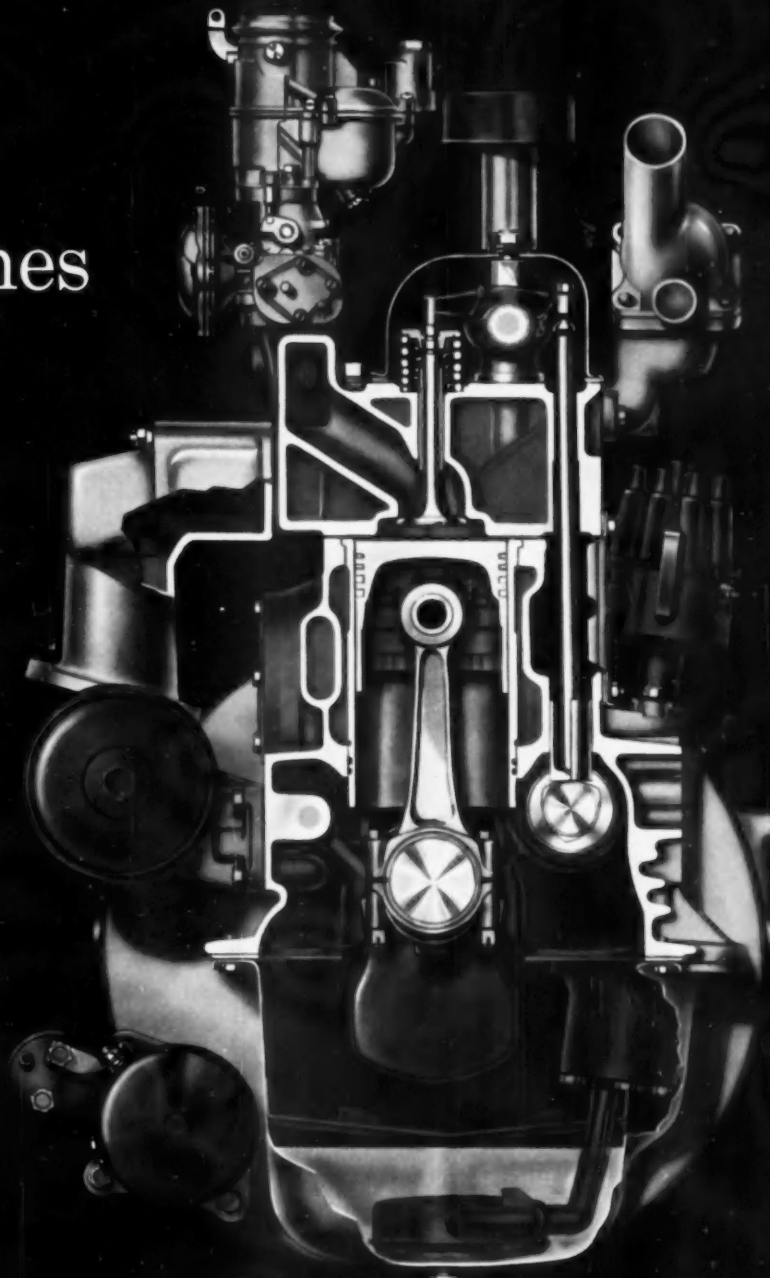
Bore: 4-1/4"

Stroke: 4-1/4"

Displacement: 362 cu. in.

Other Sixes: gasoline—170, 145, 130,
and 110 hp

LP-Gas—160, 142 and 100 hp

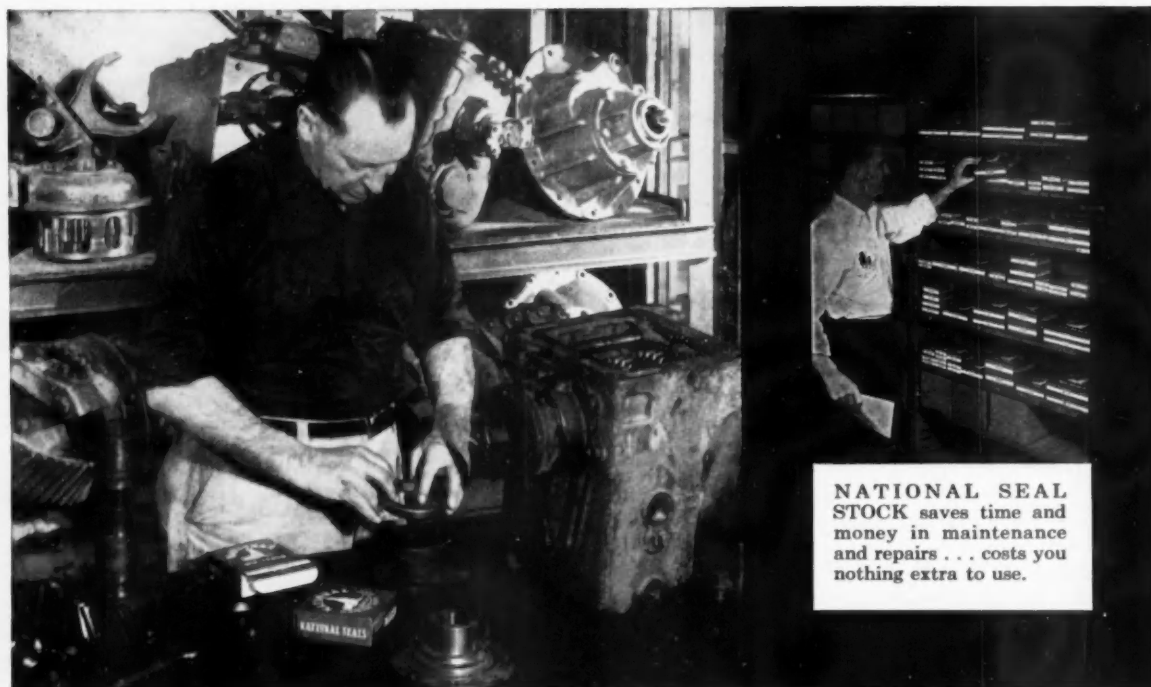


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REO DIVISION, The White Motor Company, Lansing, Mich.



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NATIONAL SEAL STOCK saves time and money in maintenance and repairs . . . costs you nothing extra to use.

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You slash costly vehicle downtime . . . save on labor with rigid overhaul standards, new National seals *every time*

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Install a National Service Stock. First, your National Seal jobber surveys your needs, recommends a basic stock for you to buy. Then he inventories it periodically, tells you what you require and how to modify the stock to your changing needs. Replacements are always on hand to use *whenever* a seal is removed.

Equipment dependability means money in your pocket, so rely on National Oil Seals—in leather or synthetic—to keep lubricant safely in its place. Call your National Seal jobber today!

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DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC. • DETROIT 13, MICHIGAN





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Control devices for the construction industry
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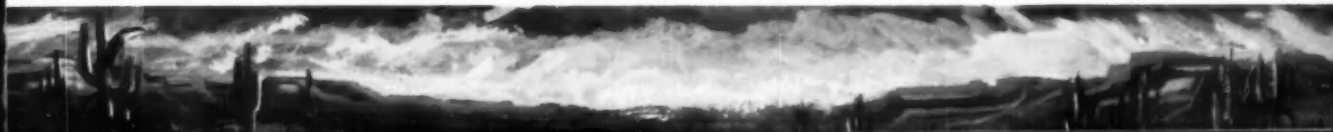


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CORPORATION**

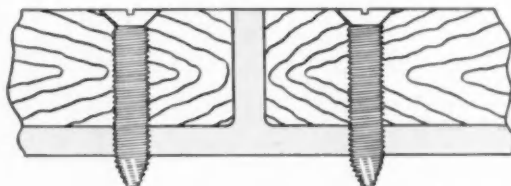


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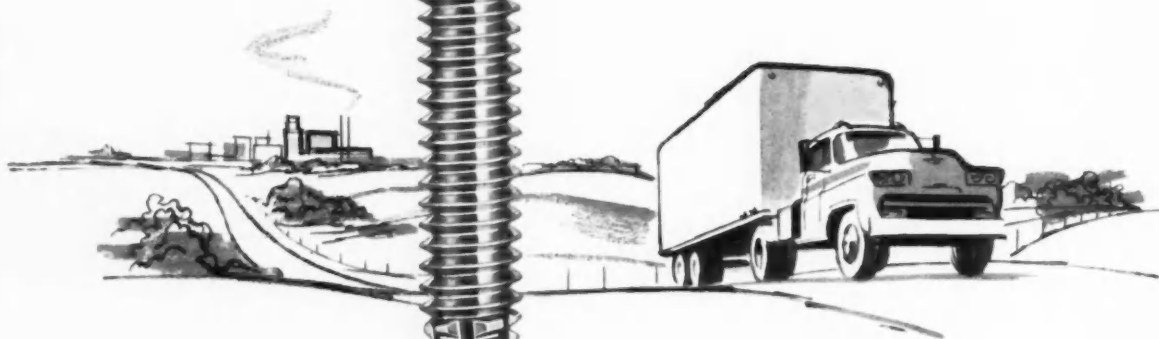
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*From the world's
largest manufacturer
of automotive
fasteners...*



Here's how floorboard screws are applied to provide a tight, firm base for heavy loads.



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bright zinc and clear chromate finish...in cartons or bulk



Now Lamson offers you a new, fast-moving fastener item. These Floorboard Screws are widely used in maintenance and replacement of trailer floors.

For distributors, they offer extra sales to fleet operators and repair shops. For maintenance shops, they offer top quality, dependability and ease of application.

Shipment made from stock on the following sizes:

- $\frac{1}{4} \times 1\frac{1}{2}"$
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Write today for price list!

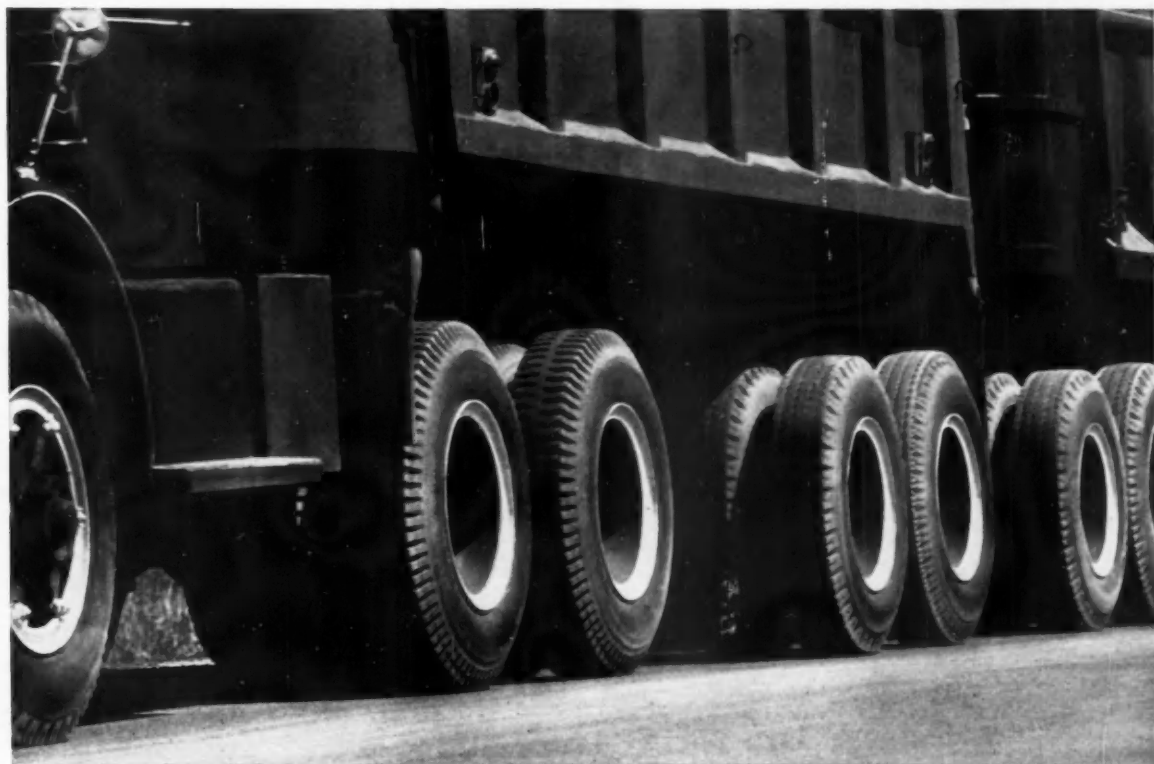
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5000 TIEDEMAN ROAD • CLEVELAND 9, OHIO

Plants in Cleveland and Kent, Ohio • Chicago and Birmingham

†Operators report:

"LOWEST MILEAGE COSTS ON FIRESTONE SUPER MILEAGE TRANSPORT CROSS BAR TIRES!"



Trucking operators everywhere report getting new lows in mileage costs with Firestone Super Mileage Transport Cross Bar tires. That's because Firestone designs these Super Mileage Transports *especially for drive-wheel service*—then builds them with Firestone Rubber-X, the longest wearing rubber ever used in Firestone tires!

You'll find the Super Mileage Transport Cross Bar has 93% extra tread depth to give double the mileage on original treads—and then deliver 25% more tread mileage from regrooving! The Firestone tread design offers extra traction for all the latest increased power

units. Extra thick treads and shoulders reduce punctures and costly downtime losses. And the all-nylon Firestone S/F (Shock-Fortified) cord body withstands more impacts, helps prevent heat blowouts and flex breaks. Exhaustive proving ground tests and millions of test miles on the country's leading fleets have proved it!

Get Firestone tubeless or tubed Super Mileage Transport Cross Bar tires at your Firestone Dealer or Store. Mount them on your drive wheels and count on extra miles of wear! And be sure to specify Firestone truck tires on all new equipment.

†Names of fleet operators furnished on request.



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TRANSPORT

SUPER MILEAGE
TRANSPORT
CROSS BAR

SUPER MILEAGE
LUG

SUPER ALL
TRACTION

Firestone

BETTER RUBBER FROM START TO FINISH

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The Dan Dugan Story, or

How to Win a Mountain of Safety Trophies



Leadership is important, and we have that leadership. President Dan Dugan (above) wants everyone to be safe

WE'RE PROUD OF OUR SAFETY TROPHIES here at Dan Dugan Oil Transport Co. We've got a mountain of 'em . . . and a safety record that we think proves we deserve them.

It's a good record we're trying to make still better. In 1956, we had a traffic accident (does not include accidents when properly parked, loading or unloading) frequency ratio of 0.37 per 100,000 miles. That was the year we won American Trucking Assns.' President's Trophy—grand award over all fleets competing in ATA's annual National Truck Safety Contest. The same year we also won a first place award in National Safety Council's Fleet Safety Contest.

In 1957, the frequency ratio dropped to 0.23 per 100,000 miles, and in 1958 we reached 0.20. For 1958 our drivers had only seven accidents in the "chargeable" class while logging 10,117,502 miles of driving.

All told, the company has earned more than 50 national and state awards. Among them, six National Tank Truck Carriers-Trailmobile awards during the 10 years the trophy has been offered.

We spend about \$60,000 a year in our personnel and safety program, but it's an investment which pays big dividends. Obviously, our insurance costs are among the lowest.

**Careful driver selection, continuous training,
high standards of supervision,
sincere recognition, careful equipment selection
are what's involved says Richard Olson,
Safety & Personnel Director, Dan Dugan Oil Transport Co.**



Maybe you feel that "It's easy to be safe in South Dakota." But in rating our performance, weigh these facts:

South Dakota's highway system has a dual problem—long distances and sparse population—which strains its resources to the limit. Because of this, few routes span our state. All are congested.

Our drivers face all kinds of weather—blizzards, icy roads, and snow. The state now claims the doubtful honor of having the highest death rate in the nation (more than 12 deaths per 100,000,000 vehicle-miles). These are the drivers we share the road with . . . and have to avoid. Our own accident record used to be at the national average for fleets. Other fleet rates in this area still are.

But it's as easy to be safe here as anywhere in the nation. Provided that the people running the fleet recognize these facts. . . .

- Neither roads nor equipment are the major causes of accidents.

- Unsafe acts *by people* are the main causes.

- The fundamental task of a safety program is to correct the problems of the human element.

Yes, we campaign for better roads. We welcome better engineering and design in our vehicles. In fact, we design equipment to our own specifications for greater safety. But our prime concern is still with *people*.

Leadership is important in any program that deals with people. Fortunately, our company has that leadership. President Dan Dugan is a determined man. He wants everyone to be safe. He wants the fleet to maintain its safety record. And he has the determination and ability to inspire our people with the same desire. So we build a good safety record.

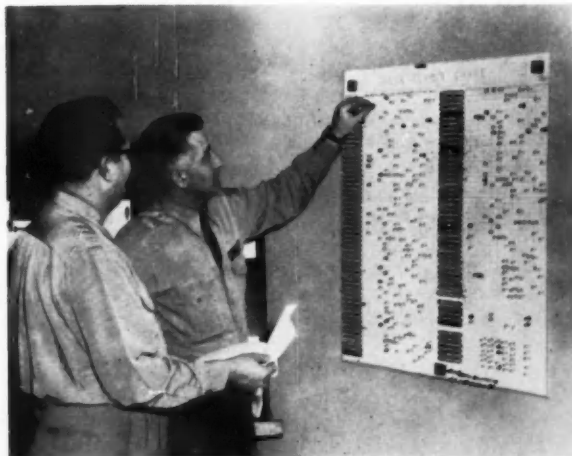
But we have to keep at it to keep it good. That calls for a workable safety program. Ours is built on four basic elements:

1. A careful driver selection program, followed by continuous training that's tailored to the needs of the individual.

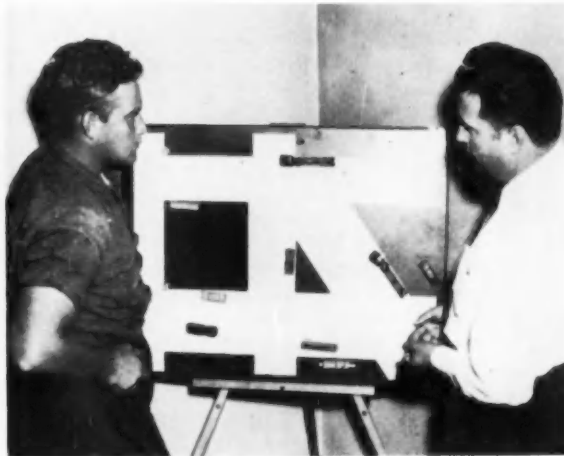
2. High standards of supervision. Management demands top performance.

(TURN TO NEXT PAGE, PLEASE)

When driver trainers spot a need, training starts immediately. At safety headquarters, we keep a board which



shows each time a trainer goes out with a driver. He also arranges for terminal meetings for further training





We designed a tank trailer to overcome the problem of rigs turning over because of a high center of gravity

How to Win a Mountain of Safety Trophies

Continued from Page 125

3. Sincere recognition for courtesy. We do everything possible to let our drivers know that we are aware of their fine efforts. This includes letting each driver know immediately whenever we receive a complimentary letter or comment about him.

4. An equipment selection, design and maintenance program which aims at providing our drivers with safe equipment.

The selection program is important in reducing our formerly high turnover among drivers. Ten years ago, on a total of 113 drivers, we had a turnover rate of as high as 17 per cent per month. Today with 150 drivers, we hire about six new drivers a year. Result is we retain safe, experienced drivers and avoid the high accident and training costs of continually working with "greenhorns."

To get these six new drivers we may interview as many as 1000 applicants a year. Of these, 120 will qualify for our selection tests.

Our employment application form calls for a 5-year record of previous employment including references. We check this record. If there's any doubt about the references, they're checked *before* we spend any more time on the man.

If the applicant looks promising, he's then given a series of written tests. These rate his traffic and driving knowledge, intelligence, personality and driving attitude. In these tests we're looking for proof that the applicant is an emotionally mature individual who accepts all his responsibilities . . . as a citizen and as a driver.

A driving test with one of our driver trainers is next. And it's an important one for the applicant. We pay him for the time it takes. But, if the driver trainer's written report is unfavorable, the applicant won't make our regular payroll. If he gets a good

report, we then have him take a physical exam and further driver tests.

It takes about five hours plus a day with the driver trainer to process the new man—two hours for the application and tests, three more for the physical exam and for preparing our summary report on him. If this report is favorable, it becomes our recommendation to the superintendent at one of our terminals. But it's still only a recommendation. It goes with the new man to the terminal superintendent. The superintendent has the right to refuse to accept the new man. However, in some 400 cases, only two men have ever been refused.

We pinpoint training to meet the immediate needs of each driver. We do not teach one driver how to use his brakes properly while 10 others who don't need this training sit in boredom. We consider this the worst possible kind of training.

Instead, our four driver trainers are constantly on the alert to find the individual needs of each man. When they spot one, the training starts immediately. As assistant safety directors, our trainers check-ride a driver, arrange for a meeting after his trip or accompany him to the terminal for schooling. At safety headquarters, we keep a board which shows each time a trainer goes out with a driver. We also keep a file of the trainers' reports on what training was given and what results were obtained on each driver.

This method has a number of advantages. Our trainers spot driver habits which may be safe in fair weather but dangerous when conditions are bad. For example, a driver who habitually depends on his brakes to avoid trouble instead of controlling his speed and following distances. This could lead to serious trouble on icy or snowy roads. Trainers watch for such habits, then retrain the driver.



Ladder on front end of trailer on left side where driver can watch it discourages kids from hitching a ride

Trainers are alert to drivers' emotional problems and try to help them over the rough spots. These may be family troubles, bills (we have an employees' Credit Union), serious illness, or any one of a number of things which are vital to the drivers or *which they think are vital*. In other words, we try to bring the man through a tough period without an accident or damage to himself.

The program includes helping drivers adjust to each new unit they drive. We don't expect drivers to make the adjustment without help. This is a management responsibility. Our safety record proves the value of accepting this responsibility.

Finally the program helps a driver in his relations with other departments. It teaches him how to get prompt service on his truck, how to get repairs made, how to prepare reports and when reports are needed. Many of these "How-To's" worry a driver. He may be a great driver with a top safety record but a printed form throws him for a loop. When this happens it's our job to help him with the form—and to be sure that the next form does not have the same effect.

But, you can hire top drivers. You can train them. You can supervise them. You can urge them. You can offer them incentives to drive safely. You can have them eager to drive safely. And they'll still have accidents . . . bad accidents.

That is, unless management accepts its responsibility to provide them with safe equipment.



When driver turns, tail of fifth wheel comes in contact with a pin that sets turn limit, prevents jack-knifing

You can discover the need for safer equipment from accident reports. Some time ago we had several sideswipe accidents. When the second and third sideswipe happened, we were in no better shape to correct the trouble than we had been with the first. Then we road-checked. Here we learned that the clearance lights on our tank trucks were hard to see forward. We made a study and redesigned the tanks, especially the left front corner. Result: Fewer sideswipes from then on.

Here's another example: Several years ago we noted a number of costly rear-end collisions. To remedy this we knew we had to make our units easier to see at night. So we added picture-frame bumpers, reflective tape for all signs and unit numbers, higher-intensity rear lighting. Again: Fewer accidents.

We designed a tank trailer to overcome the problem of rigs turning over because of the high center of gravity of conventional designs. It was built to our specifications. And it works. We have had 30 of these units with more than six million miles of service without an overturn in normal highway operation.

Fruehauf Trailer Co. makes most of our low-center-of-gravity units and was the first company to agree to our specifications. Butler Mfg. Co. has built two of them and is now pioneering a design which we believe incorporates some of our thinking. As far as we know, we're the only trucking firm using the design, but we expect to see it used more extensively in the near future.

We insist on a minimum clearance of 18 in. under our transports at any point. This includes landing dollies. It has been our experience (and this has been true in almost
(TURN TO PAGE 152, PLEASE)

CONTAINERS

Speed the Haul

Protect the Freight

Cut Handling Costs

Whether it's fast interchange of freight among all types of carriers or expediting the handling of problem freight, they're here to stay . . . and make a profit for you

LOOK BEFORE YOU LEAP . . . into containers. It calls for a sizeable investment, but it can pay-off big too.

Three principal reasons for the pay-off are in speeding your hauls, better cargo protection, less handling costs. Users cite several other advantages (see list below). You won't be able to capitalize on them all, but they'll give you an idea where to look in deciding if you'll find containers profitable.

Why use containers?

Here in brief are the reasons most often given by users. You won't be able to cram these advantages into any one operation . . . but check the list, then read the article for details . . .

Flexibility	Lower Hauling Costs
Interchangeability	Quicker Loading
Handling Speed	Fast Turnaround
Cargo Protection	Reduced Labor Cost
Theft Protection	Compact Storage
Selection of Sizes	Lower Packing Cost
Side Handling	Low Handling Cost
Greater Equipment Utilization	Speeds Handling
Easy Storage	"Hard to Handle" Freight
Faster Delivery	Keep LTL Shipments Together
Refrigeration	

What is a container?

Well, it has no wheels. It can't go over-the-road without a truck or trailer chassis under it. It needs a flatcar when it wants to go by railroad. Same applies for a water trip. There has to be an ocean freight or barge handy on which it can hitch a ride.

After that there's less agreement. The field divides roughly into two major groups: (1) van-type units (Nos. 1 and 3 at right) for general freight, packaged or in bulk, (2) specialized containers for almost anything. These last range, for example, from collapsible cages with dolly wheel (No. 2 at right) to giant "toothpaste" tubes for bulk liquids (No. 4 at right).

Construction of van containers is similar to that found in truck or trailer bodies. Design of specialized types calls for creative engineering.

Main difference between a vehicle body

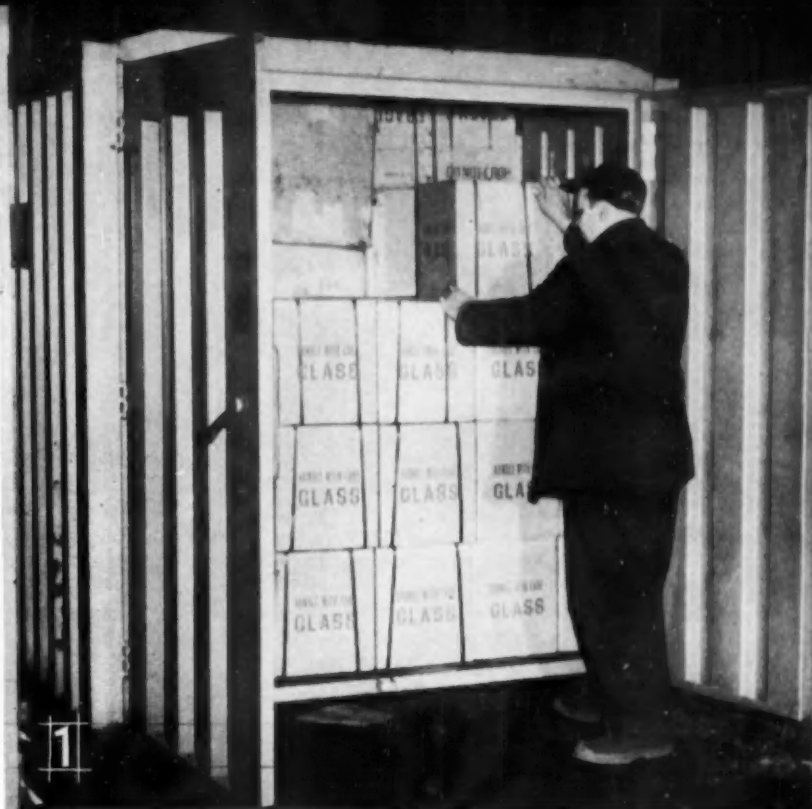
and a container is that the container has to be loaded, picked-up, set on the chassis, picked-up again, set on the over-the-road chassis or rail flatcar, picked-up again, set on the delivery chassis, picked-up again and set on the consignee's dock . . . going through this cycle for almost every trip. So it has to have strength at points where a normal body might not need it.

Here are the "strength" points to be checked when it comes to container design . . .

- Containers are often stacked . . . up to six high when loaded in ocean-going ships. This calls for strong corner posts, attention to side walls and roof.
- Tie-down devices must not only hold the container securely but also not tear loose due to the bounce and sway of a truck, the steady hammering vibration of a railroad car or the heavy pitch and roll of a ship.
- Freight inside containers must be secure. Even

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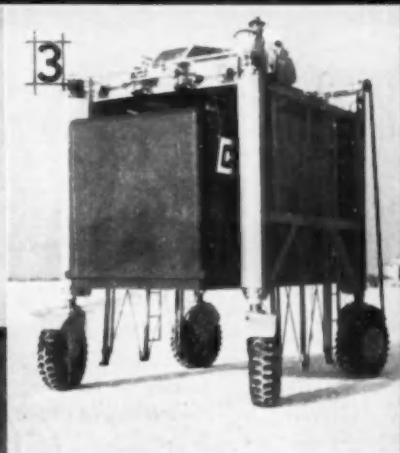
1 Containers divide into two groups —general freight and special purpose. General freight boxes usually measure 8 ft wide, 8 ft high with a choice of length from 8 to 40 ft. As shown here, they can be loaded without tying-up a power plant.



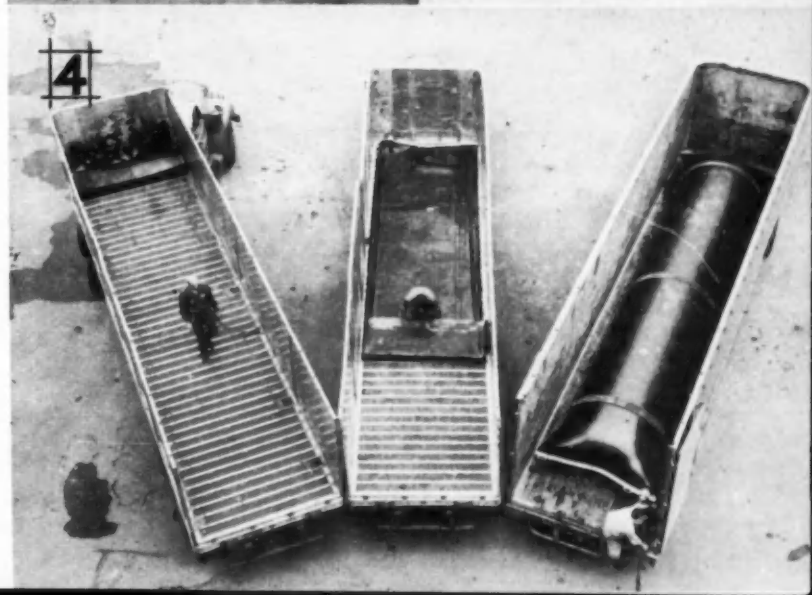
2 This specialized container can be used for less-than-trailer-load small shipments. In pick-up truck, driver can sort freight by destination. Shelf permits higher load with small packages. It can be wheeled into trailer for over-the-road haul, collapses if not needed for return freight.



3 Handling has been a problem. In common use today are giant-size forklift trucks. A newer approach is the big brother to the lumber straddle carrier, as shown here. They have to be strong. Recommended maximum gross weight for 17-ft box illustrated is 44,800 lb.



4 Use of special purpose container to convert open-top trailer to bulk liquid haul is shown here. They're called "Sealtanks," are made by U. S. Rubber. This size has 3000- to 4000-gal capacity. Note small amount of space occupied by rolled-up unit.



CONTAINERS

Continued from page 128

slight movement can hammer bulges and holes in containers in the course of a trip. Interior cargo tie downs, inflatable rubber-cushion dunnage or similar devices are recommended for many operations . . . as well as care in loading.

- Where a rail haul is involved, yard handling often results in several sudden stops. This calls for greater strength across the front of the container.

- Handling method also affects container construction. If you're going to fork lift them, the stresses are not the same as if crane lift them at the corner posts. A good strong crane jerk could split wide open one made only for fork lifts.

- In over-the-road hauling, in addition to a secure tie-down, you have to consider the bowing and twisting of the trailer chassis . . . as well as the impact of the bounce over a chuck hole.

Size and strength standards for general commodity containers are being worked-on. Because of the diversity of interests involved—truck fleets, railroads, steamship lines, inland waterways, operators, air freight carriers, military transport agencies plus the container makers, nobody expects an early "final OK." But here's what's in the works . . .

Outside Dimensions	Inside Cubic	Maximum Gross
8 x 8 x 12 ft	660 cu ft	28,000 lb
8 x 8 x 17	950	44,800
8 x 8 x 20	1120	44,800
8 x 8 x 24	1350	56,000
8 x 8 x 35	1985	67,200
8 x 8 x 40	2270	67,200

For ocean freighter loading, they should be strong enough to be stacked six high.

Also being discussed are (1) an 84-in. minimum door height and (2) bottom frame pockets for fork lift truck handling measuring 5 x 12 in. spaced 82 in. apart between pocket centers.

What freight can be containerized?

Well almost anything. Since the Army uses "almost anything," let's let them supply a practical answer.

Speaking to members of the Detroit chapter of the National Defense Transportation Assn. last month, Brigadier General Richard D. Meyer put it this way . . .

When the Army analyzed military dry cargo, "We found that . . . 42 per cent could be shipped inside a 7-ft cube with a gross weight not over five tons.

"Five years ago, we were using 1000 of the now familiar 'Conex' containers. Today we have over 50,000 and our inventory is still growing." And, noted the General, presently only 10 per cent of military freight is handled on pallets or in containers as compared to the Army's 42 per cent goal.

Not to be overlooked is the fact that General Meyers' 42 per cent doesn't include dry cargo *in bulk* or containerized liquids.

Nobody is estimating how many

civilian containers are in use. The expansion has been so rapid that the adding machines haven't kept pace. In forecasting how much business the trailer makers can expect this year, Truck-Trailer Manufacturers Assn.'s outgoing president Harry Eyler had this to say about containers . . .

"Containerization, it is expected, will expand quite rapidly. Even now it appears that container production is approaching 20 per cent of that of van trailers, which normally accounts for one-half of the total trailer output."

Let's look at some specific examples of how containers pay-off.

Greater labor productivity is a

big factor in Pan-Atlantic's Sea-Land Service. Here's how Keith W. Tantlinger of Fruehauf Trailer Co. reports it . . .

"First, overall operating costs were reduced because of greater stevedoring productivity . . . 500 tons per gang-hour are now possible (with containers) . . . 25 tons per gang-hour is a good average with conventional break-bulk techniques."

He also cites savings due to cargo

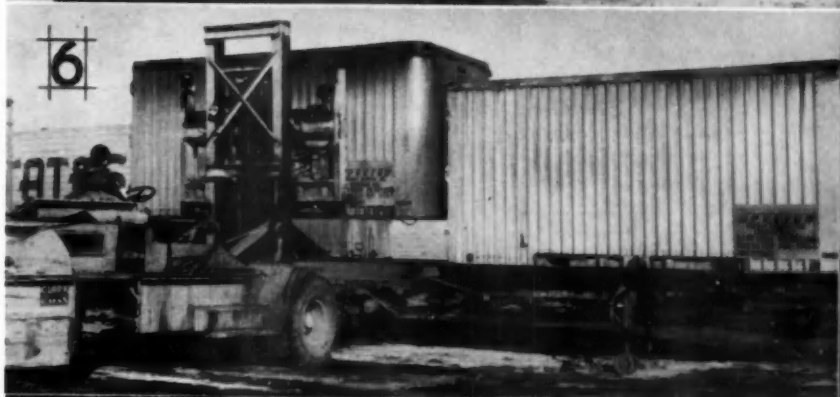
protection with containers. "Actual experience indicates that Pan-Atlantic damage claims on even initial voyages did not exceed 1½¢ per ton on the high class merchandise handled, while damage claims on the much lower rated commodities handled with

(TURN TO NEXT PAGE, PLEASE)

5 Spector-Mid-States uses fork lift-handled 17-ft units. For pick-up and delivery, they fit one to a straight truck chassis. For over-the-road, they can go as a truck-plus-full-trailer combination, but more often. . . .



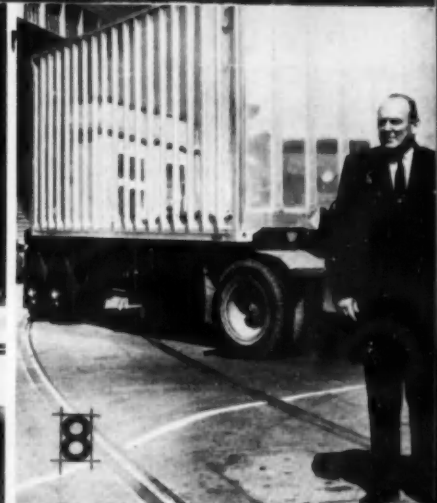
6 Spector uses them two to a 35-ft trailer chassis. Carrier serves eastern seaboard points from Chicago with containers as regular operation. Additional routes were added this year.



7 The 17-ft box also fits nicely three to a flatcar. Handling and securing is much quicker than end-loading and tying-down a piggy-back semi-trailer.



8 To serve the 50th state, Hawaii, Matson Navigation Co. has on order 350 of these 8 x 8 1/2 x 24-ft containers. On-highway payload is 46,000 lb. Trailmobile is building them of Kaiser aluminum, giving them an empty weight of 3800 lb. They'll be crane-handled.



9 Another steamship operator, Bull Lines, is experimenting with containers measuring 15 ft long, 8 ft wide, 6 ft 10 1/2 in. high. They were built by Aerobilt Bodies. They can be fork lift or crane-handled. End doors swing both in and out, are designed to open into adjacent box. Feature gives loading flexibility, for full trailer length.



CONTAINERS

Continued from page 130

break-bulk methods are frequently 20 times that amount . . . Pilferage, long a plague in the steamship industry, is completely eliminated by containerization."

Says C. E. P. Smith (who just last year investigated the extent of the potential container market for General Motors) . . .

"The cost of moving 3000 cases of canned goods (one week's supermarket requirement) would be \$220 if carried one case at a time a distance of about 150 ft; \$110 if a platform truck is used; \$40 if palletized and a fork lift truck is used; \$25 if containerized at point of shipment and moved to point of retail.

"In the packing industry, containers of delivery truck size will permit the eliminating of the handling cost between intercity and delivery vehicles, and thereby triple profits. With fresh fruits and vegetables, the same technique can reduce retail prices approximately 10 to 15 per cent."

Use of 35-ft containers to cut costs for the U. S. Post Office Dept. is cited by North American Car Corp. President E. C. R. Lasher (until recently, he was Major General Lasher, serving as Assistant Chief of Transportation, U. S. Army).

Here's a selected list of earlier container reports you may want to refer to . . .

● The 17-ft container, like that used by Spector-Mid States—Mar. '55, page 100; Aug. '57, page 78; June '58, page 206.

● Larger, 35-ft containers, such as New York Central's "Flexi-Van"—May '57, page 76, or Pan Atlantic's "Sea-Land" service—May '58, page 82.

● Or a variety of smaller units, for example bulk sugar/flour containers—June '58, page 90, household goods containers—Feb. '58, page 236, or a demountable truck body—Oct. '57, page 70.

● And for how containers fit into fleet operations, there's the up-to-the-minute report on Transportation in Alaska—Jan. '59, page 69.

Says he, ". . . the Post Office Dept. is becoming very interested in containerization. They figure when they take a load of mail from a Post Office by truck to a rail car, and transfer it to the rail car, . . . that the handling . . . costs them about \$50. So, if you have the container, you load it once and unload it once, saving \$100 per (round) trip."

Lasher also described a reefer container operation his company has worked-out with Hormel & Co., well-known meat packing concern. In brief, four loaded reefer boxes are put on a flatcar in Wisconsin, move to Chicago where the boxes are put on a trailer chassis for delivery.

"These boxes," reports Lasher, "are prearranged and packed so that as the delivery man goes around his route, the last in is the first out from the back. . . . We lease the car; we lease the container to Hormel . . . they in turn lease the fork-lift from one concern in Chicago and the tractor, or the flatbed, from another."

Spector-Mid States, a Chicago-based fleet, began using 17-ft containers about three years ago, now offers regular service to and from Boston, New York City and Philadelphia. In addition, Rockford, Ill., Milwaukee, Wis., and Worcester, Mass., were added this spring.

Spector runs them over-the-road two to a trailer chassis, switches them for delivery to a straight truck chassis. In brief, according to Spector President Stanhaus, containers . . .

- Make it possible for a shipper to send a complete load of goods from his own dock to its ultimate destination in a sealed conveyance.
- Virtually wipe-out handling delays at terminals when a full load is shipped.
- Reduce chances for damages resulting from repeated loading and stacking of freight.
- Are especially important in speeding less-than-trailer-load shipments. Like the above described Hormel operation, these are route-loaded at the point of origin for delivery at destination. These containers are switched directly from the line haul trailer to the delivery truck.

Flexibility of container use is underlined by a few experimental projects being considered by Spector. These include . . .

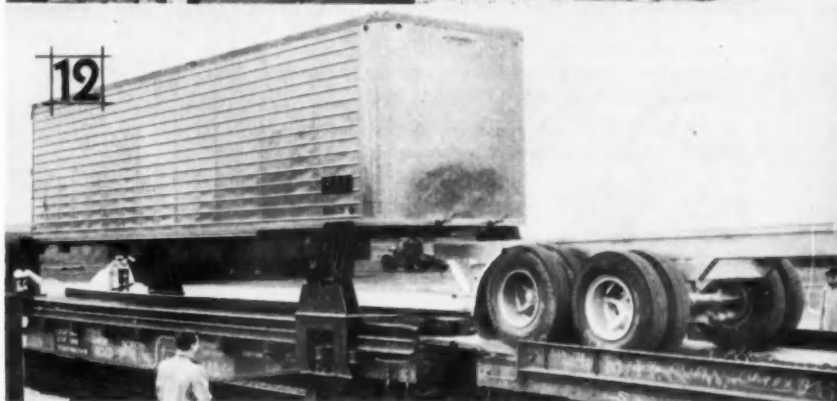
- Boosting freight volume with the same number of power plants but increasing the number of containers.
- Picking-up and dropping loaded containers enroute on the Chicago-eastern seaboard run.

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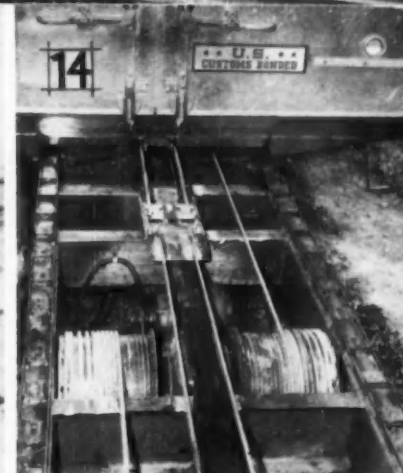
10 Pioneer containership operator is Pan-Atlantic. Use of containers makes it possible to combine low cost water transport with lower damage and pilferage rate of truck transportation. Use of 35-ft boxes with loading gear on ship cuts dock handling cost drastically.



11 Seatrain Lines, a coastwise rail car carrier, uses ships designed for maximum load with 40-ft box-cars. Trend to 50-ft cars leaves waste space which Seatrain fills in with containers double-decked. Photo shows how its giant straddle carrier fits over a full-size trailer to handle container.



12 Search for better method of loading and securing large containers on flatcars continues. Shown here is "PAT" system being worked-on by Trailmobile and Pullman. Trailer chassis backs under box, flatcar-mounted supports are released to permit driver to pull away with container.



13 Fruehauf, General American Transportation and Southern Pacific Railroad have worked-out a center rail car for either piggy-back or four 17-ft containers. Box slides on center rail pulled by steel cable through a snatch block using, in normal operation, a tractor-mounted winch.

14 Motor Cargo, Akron, Ohio, also uses a winch to pull 17-ft containers into position. It's mounted in the trailer chassis with power supplied by a 220-volt electric motor.



15 From two on a 35-ft trailer chassis for over-the-road, containers are yard-switched to one on a short trailer chassis for delivery. Freight is loaded at origin terminal for route delivery.

NEW BENDIX-WESTINGHOUSE IS SAFER, FASTER, LIGHTER,

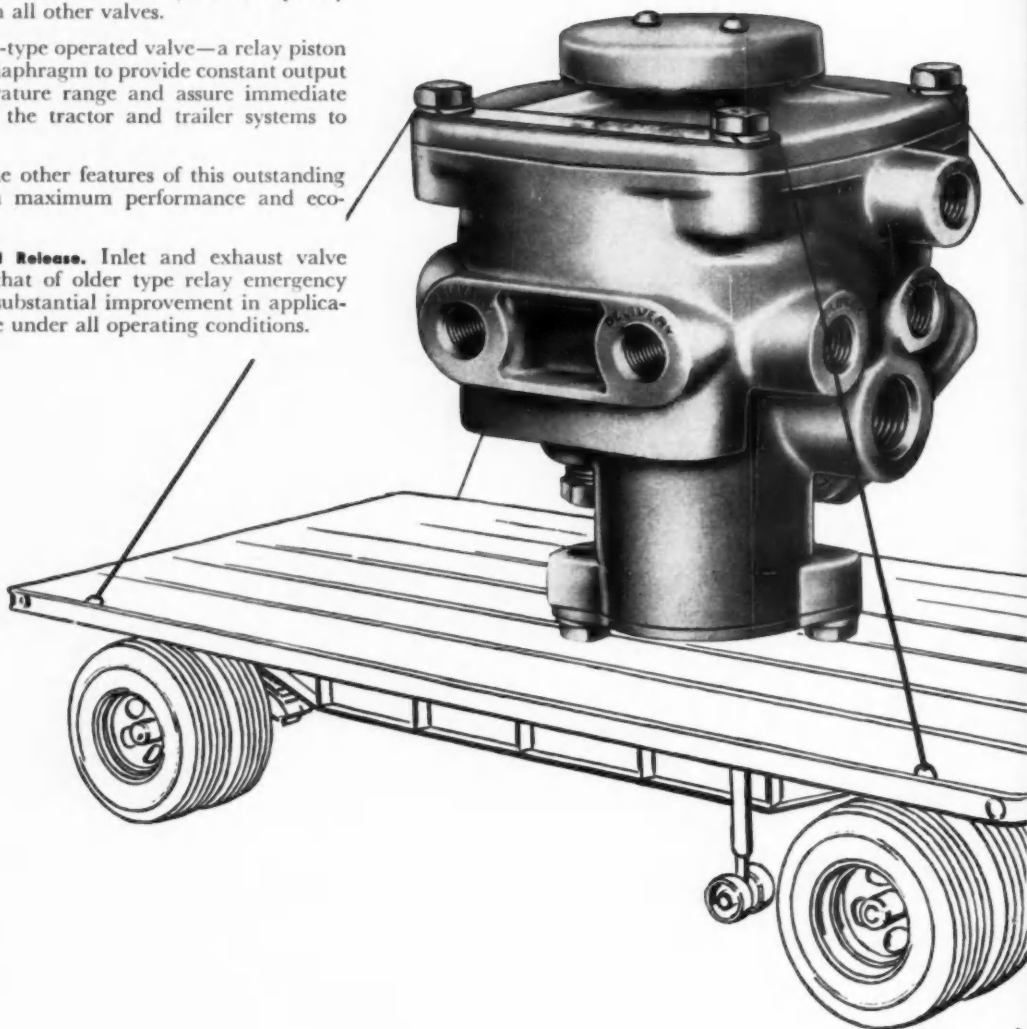
An important *new* link in the chain of devices that comprise an air brake system, the brand new Bendix-Westinghouse Relay Emergency Valve, Type RE-4, is now available for any trailer equipped with air brakes. Developed and perfected by the producer of the world's most widely used air brake systems, the RE-4 raises the already high standards of air brake safety and performance to the degree that it practically obsoletes all existing relay emergency valves. What's more, it is completely interchangeable with all other valves.

The RE-4 is a piston-type operated valve—a relay piston is used instead of a diaphragm to provide constant output over a wide temperature range and assure immediate pressure balance of the tractor and trailer systems to within 1 psi.

Here are some of the other features of this outstanding valve that give you maximum performance and economical operation.

Faster Application and Release. Inlet and exhaust valve capacity is double that of older type relay emergency valves, providing a substantial improvement in application and release time under all operating conditions.

More Positive Action. In its normal function as a relay valve, the RE-4 provides a significant reduction in required "cracking" pressure needed for other types of relay emergency valves. Thus trailer brake application, especially in the lower delivery pressure range, is faster and better synchronized with tractor brake application.



RELAY EMERGENCY VALVE

EASIER TO MAINTAIN!

Important Safety Features. The speed of an emergency brake pressure application varies directly with the drop in emergency line pressure in a 4 to 1 ratio; for example, 1 psi per minute drop in the emergency line creates approximately 4 psi per minute increase in emergency brake pressure. In the event of a gradual loss of air pressure, the trailer brakes are applied gradually; a fast pressure drop in the emergency line, as experienced in a trailer breakaway, produces an almost instantaneous emergency application. Also, the tractor-trailer cannot be moved during initial charging because the trailer reservoir and brake chamber pressures build up simultaneously. When emergency line pressure reaches approximately 60-70 psi, the brake chambers are fully released.

Construction Features. Light weight—only 4.7 pounds; die cast aluminum body and cover; mechanical and chemical bonded rubber inlet-exhaust valves on corrosive resistant aluminum bodies; filters in emergency ports for longer life—easily serviced; all seals, static and dynamic, are Buna N rubber compounded to provide long service life over wide temperature ranges.

Simple Maintenance. When maintenance is required, an emergency piston assembly, called RE-4 Insert, is available for easy installation. By simply removing two cap screws from the bottom plate of the valve, pulling the old insert out and replacing it with the new, the job is done in minutes at very low cost.

For literature describing this new RE-4 valve in detail, please contact your nearest Bendix-Westinghouse distributor, or write direct to Bendix-Westinghouse at Elyria, Ohio.

BENDIX-WESTINGHOUSE CHANGEOVER PLAN LETS YOU EXCHANGE OLD-TYPE VALVES FOR THE NEW RE-4

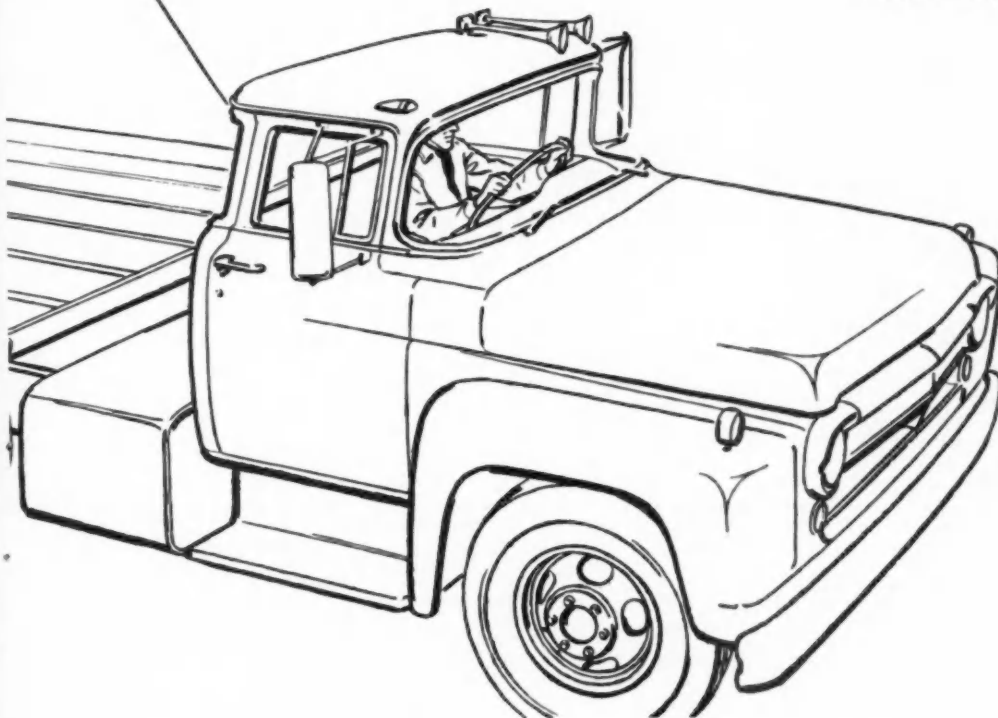
The RE-4 is specifically designed for complete operating compatibility with any existing air brake system, regardless of make. Your Bendix-Westinghouse distributor will welcome the opportunity to tell you about our Changeover Plan that allows you to exchange your present relay emergency valves for our new RE-4's at a surprisingly low cost.



Bendix-Westinghouse

AUTOMOTIVE AIR BRAKE COMPANY

General offices and factory—Elyria, Ohio. Branches—Berkeley, Calif. and Oklahoma City, Okla.



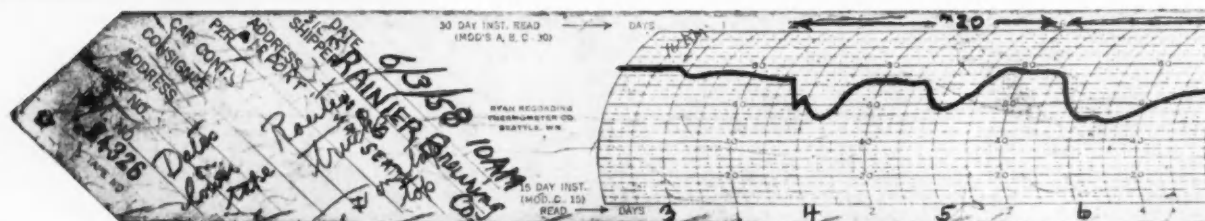


Refrigeration Gives Draft Beer "at-the-Brewery Taste"

Sick's Rainier Brewery out in the state of Washington got tavern operators to refrigerate it when delivered, designed a special reefer body to keep it cold enroute, included recording thermometers to guarantee the taste



At left is Ryan recording thermometer used by Sick's Rainier to "guarantee" beer is kept at correct temperature during delivery. It measures six inches high, three inches in diameter. It gives running record of temperature on tape as shown below. Unit is available in both a 33 and a 15-day version





Sick's Ranier Brewery uses both trailers and straight trucks for draft beer hauling. At left is 40-ft semi with 290 half-barrel capacity. It's "Thermo-King" refrigerated. At top are the specially-designed reefer bodies

▼ THERE'S MANY A SLIP between the mug and the lip, but Sick's Rainier Brewing Co. in the state of Washington has corrected most of them up to that point.

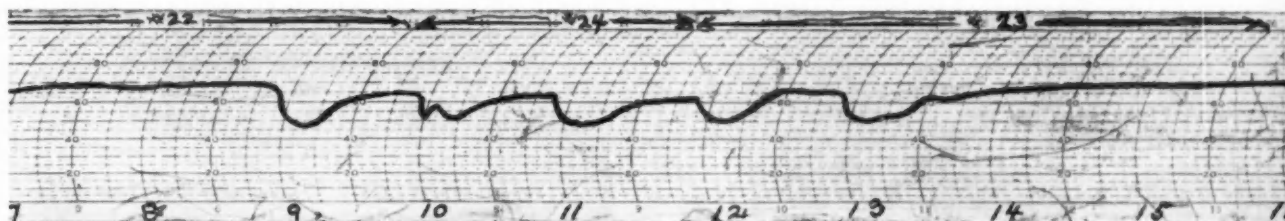
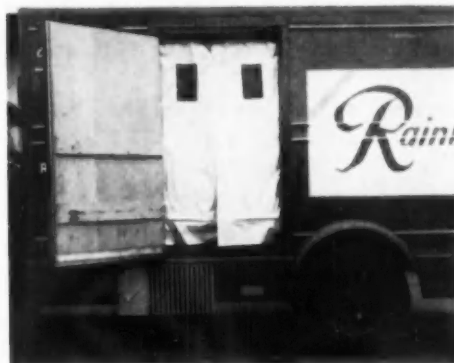
It not only has designed its own reefer bodies for draft beer delivery, but has installed recording thermometers to guarantee its delivery with "at-the-brewery" taste.

While bottle beer is not affected, even slight temperature variations can adversely affect the delicate flavor of draft beer. Since it is not pasteurized, draft beer must be held at exact temperature in order to keep this special taste.

People who know good beer have maintained for a long time that the finest testing draft beer has come from the tap room at the brewery. The brewmaster explains this by saying that the draft beer is always stored at temperatures between 40 and 42 deg.

With the constant temperatures carefully guarded by the brewer and the tavern operator, the weak link of the chain used to be in distribution. It has been a major problem to provide even temperatures during daily deliveries. The continual opening and closing

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How to Go, Go, Go with Your Own Rodeo

Canada Dry in Philadelphia shows what can be done, hopes to expand the idea into a nationwide rodeo for bottlers



Eighteen regular drivers and seven "extras" entered into the contest. Local officials were glad to lend a hand

TRUCK ROADEO INTEREST continues to grow. Latest development: A beverage drivers' rodeo.

Still local in nature, the first contest was held May 3 in Philadelphia. The man behind it: A. C. Ulrich, delivery manager for Canada Dry Corp.'s Philadelphia division.

To Ulrich, a rodeo looked like a good way to boost driver interest in safety. There was one catch: The standard rodeo problems would be unfair. Beverage bodies run 16-18 ft or longer. Standard rodeo problems for straight trucks are based on 14-ft units.

That didn't stop Ulrich. Since the standard prob-

lems didn't fit, he tailored a contest to his drivers' special needs. But he didn't stop there. From the start he aimed for a contest that other beverage fleets could use. His eventual goal: A nationwide contest for beverage truck drivers. But that will take time.

How do you build a rodeo?

You don't do it alone. Ulrich had help, lots of help. He asked American Trucking Assns, for basic rodeo material. With it as a guide, he built his own program. To run it he asked local fleetmen, safety groups and police officials for ideas, material, and judges. He got them.

Lacking space for the contest on Canada Dry grounds, he asked a neighboring department store for permission to use its parking lot (across the street from Canada Dry) on the Sunday morning of the contest. The store came through. Looking to the future, he invited other beverage companies to attend the contest and consider it for their own use.

For a rodeo, you need

contestants. For this first contest, entry requirements were lower than standard practice. Accidents did not disqualify the men. However, a handicap system was used, deducting points from contestants with chargeable accidents on their current 12-month record. In the future, ATA's "no accident" rule will be used.

The contest had two classes. The "Major" class was open to all regular drivers. The "Minor" class was

(TURN TO PAGE 208, PLEASE)



Only real problem was to modify rodeo problems to fit 18 to 20-ft bodies used by bottlers. ATA's rules for national rodeo competition are based on a 14-ft body



The world's most popular

Power Brake is Hydrovac

because . . .

Vacuum power provides instant, effortless power braking *plus maximum dependability* and safety—even if power should ever fail, brakes can be applied manually.

Vacuum power saves dead weight. This can add several hundred extra pounds to every pay-load. And extra pounds mean extra profits.

Vacuum power does the job simpler and better with less maintenance and lower original cost!

Vacuum power steals no horsepower as it is completely free of compressor drain on engine power.

Unchallenged facts like these have made Hydrovac® Vacuum Power Braking first choice among truck operators—in fact, with over 5½ million sold, more Hydrovac units are in use than all other types.

HYDROVAC (VACUUM HYDRAULIC) POWER BRAKING BY BENDIX

Bendix PRODUCTS
DIVISION South Bend, IND.





Do New State Laws Affect Your Operation?

Here's a state-by-state roundup of new laws
dealing with truck and bus fleet operation

WITH 47 STATES meeting in legislative session this year, it's fortunate that all legislation affecting truck and bus fleet operation isn't enacted into law.

Much of what becomes law helps your operation. Other new laws make problems. Nor is the whole story here. We'll be following up in subsequent issues with digests of legislation passed later this year.

The state-by-state summary below serves as a guide only. Fleetmen should check the exact wording of the new law through their state truck or bus association, or their state's motor vehicle department, to see how the law affects their particular operation. Shown in parentheses is the legislative number you can use to identify the particular law you're interested in.

Arizona—has doubled fees for optional registration of tractor-trailers (S51); now provides one and 30-day excess size and weight permits (S57); has amended restriction on charges by common carriers for long and short hauls (S82).

Arkansas—limits oversize vehicles to 30 mph, lowers limit to 45 mph for towing mobile homes, changes certain requirements on lamp and reflector regulations, amends brake requirements and provides a brake deceleration table (S150); prohibits muffler cutouts or any device producing unusual noise or smoke (H295); imposes 3 per cent tax on used vehicles on which no state sales or use tax has been paid (S242); exempts vehicles with seating capacity of eight or less from use tax if purchased outside the state (S382).

California—has removed provisions for reduction of registration fees and gasoline tax this year and makes six cents gas tax permanent (S20); has amended axle weight limits to per-

mit 2500 lb rear axle excess weight because of passengers standing on buses (H723).

Colorado—has amended fuel tax refund and penalty provisions and provides for refund to fuel transporters for accidental losses (H440).

Connecticut—requires approval of lighting devices by the Motor Vehicle Commissioner (S292).

Florida—prohibits sale of hydraulic brake fluid below certain minimum standards (S74); has set standards for use of radar in measuring speed and makes evidence obtained admissible in court (S77).

Georgia—now exempts nonresident trailers involved in interchange agreements from registration fees (H329); has approved reciprocal agreements entered into by Public Service Commission (HR85).

Idaho—has set up a demerit system for traffic violators (H85); has a

new law relating to motor carriers operating under grandfather clause, and provides additional administrative fees (H157).

Indiana—now exempts city transit buses from gasoline tax (H176); provides for separate assessment of property tax on motor vehicles (H462); permits sale of vehicle impounded for violation of weight limits 60 days after notice to owner by registered mail (S395).

Iowa—has set bus speed limit at 60 mph except for school buses (S528); has set a 55 mph speed limit for vehicle and trailer combinations (H26); has increased height limit to 13½ ft (H188); provides new schedule of maximum gross weight limits consistent with Federal "freeze" (H312); has set a 75 mph speed limit during daytime and 65 at night on controlled-access highways, also provides a minimum of 40 mph (S125); requires display of white or amber lights on road side of parked vehicle

(TURN TO PAGE 164, PLEASE)

Lookum for Instant Oil Control?

Try **AMERICAN HAMMERED KROME-OIL**

with Stainless Steel Oil Rings

American Hammered stainless steel oil rings come in fast—stop smoking, control oil in tapered and out-of-round bores. New design is the reason why.

These stainless steel oil rings are self-expanding. They hold their fit in the cylinder bore because of their new end-abutment design. (See illustration below.) Also because stainless steel retains its original, built-in tension throughout the life of the ring. Stainless steel ring life, incidentally, is twice that of rings made of other metals.

Stainless steel oil rings are matched with pre-seated, chrome plated compression rings. Both seat instantly.

Try Krome-Oil on your next job, new or older model, regardless of cylinder condition. Krome-Oil sets don't fail. No come-backs. Try just one set and you'll see.



Illustration above shows a stainless steel oil ring compressed in the cylinder bore. The correctly engineered number of spring tension points provide the most uniform outward pressure ever attained—and without any back-up springs or shims (see arrow No. 1).

An equal number of sturdy shoulders supporting each steel rail produce complete contact with the cylinder wall (see arrow No. 2).

AMERICAN HAMMERED

Automotive Replacement Division

MUSKEGON, MICHIGAN

A Division of Sealed Power Corporation

Superior Announces Two New Transit Coach Series

SUPERIOR COACH CORP., Lima, Ohio, has introduced two new transit coach series—the Supercruiser Express and the Supercruiser Crown Express. The new coaches are designed primarily for city bus lines and inter-city operators.

Both series have

72-in. and 78-in. headroom models in both forward power and rear power versions. A variety of power, transmission and paint options are available.

Seating capacity for rear power models range from 33 to 45 passengers. Forward power models range from 29 to 45, depending on seat arrangement and type of seat used. Transit seats, headrest seats and reclining seats are optional on both series.

Features of the new series include

the Scene-O-Ramic windshield which gives the driver 136 deg of unobstructed forward vision. Windshield posts are only 3½-in. wide. "See-Through" entrance door windows, and a new driver's window sash give clear vision to the sides.

Luggage compartment is at the rear in forward control models with access through both a rear and side door. On



rear power models, side skirt luggage compartments are available. Inside aluminum luggage racks and outside roof carriers with ladders are optional.

Some models are offered with slanted windows and sliding window sash which meet ICC regulations. Windows are hinged and can be swung out to give escape exits.

Superior's Super-Zinc Kote steel now used in the company's school buses, is being used in the Supercruiser Express series. A hot-dipped zinc coating applied to the steel at the mill is said to resist rust and corrosion at least three times longer than other methods. Bus side panels are ribbed for greater strength.

New Multi-Stop Truck Is Battery Powered

CLEVELAND VEHICLE CO., Cleveland, Ohio, has announced a new electric truck for city pickup and delivery service. It's reported to be the first tubular steel and reinforced fiberglass plastic truck on the market. The Model LA has 175 cu ft capacity. Body is mounted on a 107-in. wheelbase. Overall height of the truck is 92 in.

The truck weighs only

300 lb without battery yet has a 3000 lb payload capacity. It can do 30 mph and travel up to 80 miles without recharging the battery.

Walter Thomas, who is sparking this development, says from the standpoint of operating costs the electric truck shows considerable profit over gasoline units. The Electric Storage Battery Co. has developed a new battery which increases mileage per charge yet weighs 35 per cent less than previous ones. The first of these new batteries are now being tested in Cleveland.

Battery charging costs are

about a ½ cent per mile. Charging can be done at night when electricity costs are lower. The plug-in charging system on the truck is automatic and does not require personnel to operate it.

Maintenance costs on the electric are reported to be considerably less than on gasoline trucks. Since it is electrically powered, there is no engine to tune up, no cooling



system or fuel system to worry about. The electric drive motor is connected to the rear axle by a drive shaft. Since the clutch and transmission are eliminated, there is practically no power train maintenance.

The body requires almost no maintenance. The tubular steel frame is enclosed in the fiber glass body panels to prevent rust and corrosion. Unitized construction assures a strong, lightweight body.

A five-position controller

operates the truck. The only other control is the master switch which has forward and reverse positions and a battery-charge circuit.

Seven contacts make up the speed controller (accelerator). They have interchangeable finger tips to keep spare parts to a minimum. Contact tip life is about 10,000 miles.

beats your best cost record by a country mile

new Cooper nylon truck tire

runs and runs and runs

**79% more tread depth... up to double the mileage...
more lateral traction... more bonus recaps**

- 1** Tread is over $\frac{3}{4}$ " deep in larger sizes and made with Cooper's new CSA#6 super rubber to deliver the longest mileage ever . . . even on the toughest highway runs. Special rib spacing dissipates heat, keeps tread and body cool.
- 2** Cooper all-nylon "Hi-T" cord body is electronically processed and each cord is actually stronger than steel cable, pound for pound.
- 3** Cooper's exclusive running rib gives more lateral traction to protect against side slips, jackknifing. Sure-footed straightaway traction keeps heavy loads moving on steep grades. There's more traction power to stop . . . go . . . hold the road.
- 4** Cooper Shock-Guard construction with new nylon "Hi-T" cord gives a practically damage-proof tire body — up to 4 and 5 bonus recaps.

Cooper Road-Grip SUPER TREAD for highway service

See your Cooper truck tire dealer, or write Dept. 118, for special introductory prices.

COOPER TIRE & RUBBER COMPANY, FINDLAY, OHIO



June News Roundup

Safety Directors Elect Motor Cargo's Smith as Council Chairman

OKLAHOMA CITY, OKLA.—Some 400 top-level safety directors attended the annual Spring Meeting of American Trucking Assns.' Council of Safety Supervisors held here middle of last month. They spent three days attending sessions packed with safety know-how, finished off by electing new officers.

G. L. Smith, assistant vice president, Motor Cargo, Akron, Ohio, moves into the top spot as council chairman. New vice chairman is Tony Lombardi, safety director, Western Truck Lines, Los Angeles, Cal. "Sonnie" Sontheimer, ATA safety department director, was re-elected secretary.

Regional chairman elected include

CCJ Gets It Again!



For the seventh consecutive year, Commercial Car Journal has won the National Safety Council's Public Interest Award for its editorial support of traffic safety. Shown here is CCJ Editor Bart Rawson (right) receiving the honor from George Lowe (Atlantic Refining Co.), chairman of the Street and Highway Committee, Philadelphia Chamber of Commerce.

1959 Domestic Truck Factory Sales by G.V.W.

Month	6,000 lb. and less	6,001-10,000 lb.	10,001-14,000 lb.	14,001-16,000 lb.	16,001-19,500 lb.	19,501-25,000 lb.	25,001-33,000 lb.	Over 33,000 lb.	Total
January	43,762	13,070	1,039	7,097	7,954	3,934	2,566	2,177	81,699
February	42,505	12,866	1,131	7,015	8,882	4,970	3,150	3,256	83,775
March	44,744	14,785	1,266	7,927	11,077	5,457	3,952	3,852	83,060
Total—3 Mos.—1959	131,011	40,721	3,436	22,039	27,913	14,361	9,668	9,285	258,434
Total—3 Mos.—1958	126,532	39,939	3,021	16,202	17,702	11,213	7,871	6,165	175,645

Source: Automobile Manufacturers Association.

Robert F. Varner, Coastal Tank Lines, York, Pa. (eastern); Horace Grant, Deaton Truck Lines, Birmingham, Ala. (southern); John W. Jacobson, F. J. Boutell Driveaway, Flint, Mich. (central), and W. C. Taylor, Ringsby Truck Lines, Denver, Colo. (western).

"Top Management Zeroes in on Safety" was the theme for one of the program's high points. It was blunt. First speaker, President R. E. Lee of Lee Way Motor Freight, laid it on the line: "What management wants from its safety department is Utopia—a perfect accident record." Said W. H. Boutell, vice president, F. J. Boutell Driveaway, "... I feel you will agree that one who will appropriately discharge his (safety) obligations to the public will save money as well." From Don B. Hearin, Jr., president of Hearin Tank Lines, came the reminder that, "Top management has three primary responsibilities in safety—legal, financial and moral."

Other highlights of the meeting included...

- Harold Payne, Buckingham Transportation safety director, outlining the techniques for effective driver award presentations.
- Joseph T. Jenkins, Mason and Dixon Lines safety director, explaining how to put over a special emphasis accident prevention contest.
- Ken N. Beadle, Pacific Intermountain Express director of safety and driving, describing his periodic "concentrated driver contact" program.
- Judge James Demopolos, Oklahoma City Municipal Court, saying, "Society must come to regard the traffic violation as socially unacceptable before any significant decrease in the nation's highway accident rate can be achieved."
- Welby Frantz, ATA vice president and Eastern Express executive vice president, advocating "... the adoption by all states of a universal (traffic) code."

Crim Named "Driver of the Year"

WASHINGTON, D. C. — Twenty-six years of accident-free driving, marked by heroic life-saving efforts on and off the highways, have earned an Okmulgee, Okla., truck driver the title

1959 Truck Trailer Shipments

Type of Trailer	March	Three Months
Vans		
Insulated and refrigerated	447	1,147
Steel	75	148
Aluminum	372	999
Semi-insulated	62	171
Steel	62	171
Aluminum		
Furniture	166	350
Steel	134	290
Aluminum	32	70
All other closed-top	2,166	6,368
Steel	682	1,864
Aluminum	1,486	4,504
Open-top	216	539
Steel	65	204
Aluminum	151	335
Total—Vans	3,059	8,575
Tanks		
Non- and low-pressure		
Petroleum		
Carbon and alloy steel	222	616
Stainless steel	20	61
Aluminum	151	393
Total—Petroleum	393	1,070
Chemical, food, fluid solids	33	99
All other, incl. aircraft refuelers	138	297
High pressure (LPG), chemicals, etc.	21	106
Total—Tanks	585	1,572
Pole, pipe and logging		
Single axle	19	74
Tandem axle	77	175
Total	96	249
Platforms		
Racks, livestock and stake	45	121
Grain bodies, all types	143	400
Platforms (Rats), all types	876	2,298
Total—Platforms	1,064	2,819
Low-bed heavy haulers	260	612
Dump trailers	274	577
All other trailers	262	736
Total—Complete Trailers	5,690	15,140
Trailer chassis	558	1,323
Total—Trailers and Chassis	6,158	16,463

Source: Industry Division, Bureau of the Census.

of the trucking industry's "1959 Driver of the Year." American Trucking Assns. announced Carl C. Crim as recipient of the national award and cited him for more than a million and a half miles of driving without an accident. Crim drives a tank truck for Hugh Breeding, a petroleum common and contract carrier with headquarters in Tulsa.

Pa. Turnpike Bans "Bald" Tires

HARRISBURG, PA. — Pennsylvania Turnpike officials warned drivers of the danger of driving vehicles with "bald" tires and promised a crackdown to prevent such vehicles from using the superhighway.

(TURN TO PAGE 210, PLEASE)



"We won 'em in a quiz program," jokingly says Mr. Worth Harris. In Mr. Harris' "program", he quizzed his drivers, mechanics and accountants about the competitive-make tractors he was operating. Answer . . . the choice of Mack COE Thermodyne® diesels as the tractors that would lower his operating costs while providing his customers with the most reliable service.



L. Worth Harris



J. P. Carpenter

"After trying all makes and models"—says Harris Express, Inc.—

"We picked MACKS for their standout economy"

"Here's how we determined the most economical and dependable tractor for our high-speed general freight service along the Eastern Seaboard," says Mr. Worth Harris, president of Harris Express, Inc., of Charlotte, N. C.

"We used to lease our over-the-road tractors. Since we were running all makes and models, it gave us an ideal opportunity to compare them for fuel consumption, running costs, and length of service between overhauls.

"It was a runaway for Macks. For fuel economy, for shop savings, for mileage life and for dependable road

performance, they were in a class by themselves. And our drivers were equally enthusiastic about the all-weather handling characteristics of their Mack trucks."

Result? Harris Express bought Macks—40 Mack Model H COE Thermodyne® diesels so far. "And they're living up to expectations," says Mr. J. P. Carpenter, V.P. and Chief of Operations. "They're giving us excellent fuel mileage, upkeep costs are at a minimum, and we expect to operate them between 300,000 and 350,000 miles each before major overhaul."

Mack owners agree—it costs far less to operate Mack trucks. Mack owners agree as well on the bonus benefits of Mack dependability in terms of all-weather service and customer satisfaction. Why not speak to one today. Simply ask your Mack branch or distributor for names and addresses. Mack Trucks, Inc., Plainfield, New Jersey. In Canada: Mack Trucks of Canada, Ltd.

6500

MACK
FIRST NAME FOR
TRUCKS



NATIONWIDE SERVICE

AKRON—Motor Rim Manufacturers Co.
ALBANY—Wheels, Incorporated
ALBUQUERQUE—Wheels & Brakes, Inc.
ATLANTA—John A. Harris & Son, Inc.
BALTIMORE—Standard Wheel & Rim Co.
BIRMINGHAM—Wheel, Rim & Parts Co.
BOSTON—New England Wheel & Rim Co.
BUFFALO—Frey, the Wheelmen, Inc.
CHARLOTTE—Carolina Rim & Wheel Co.
CHICAGO—Stone Wheel, Inc.
CINCINNATI—Rim & Wheel Service, Inc.
CLEVELAND—Motor Rim Manufacturers Co.
COLUMBUS—Hayes Wheel & Spring Service
DALLAS—Southwest Wheel, Inc.
DAVENPORT—Stone Wheel & Rim Co.
DAYTON—Rim & Wheel Service, Inc.

DENVER—Quinn & McGill Motor Supply Co.
DES MOINES—Des Moines Wheel & Rim Co.
DETROIT—H. & H. Wheel Service, Inc.
EVANSVILLE—Auto Wheel & Rim Co., Inc.
FARGO—Wheel Service Company
FORT WAYNE—Wheel & Rim Sales Co.
GRAND RAPIDS—Rim & Wheel Service Co.
HARRISBURG—Standard Wheel & Rim Co.
HARTFORD—Connecticut Wheel & Rim Co.
HOUSTON—Southwest Wheel, Inc.
INDIANAPOLIS—Indiana Wheel & Rim Co.
JACKSONVILLE—Southeast Wheel & Rim Co.
KANSAS CITY—Borbeis, Young & Co.
KNOXVILLE—John A. Harris & Son, Inc.
LANCASTER—Standard Wheel & Rim Co.
LOS ANGELES—Wheel Industries, Inc.

LOUISVILLE—Auto Wheel & Rim Service
LUBBOCK—Southwest Wheel, Inc.
MEMPHIS—Beller Wheel, Brakes & Supply Co.
MILWAUKEE—Wisconsin Wheel & Rim Co.
MINNEAPOLIS—Metzger Wheel Co.
NASHVILLE—Beller Wheel, Brakes & Supply Co.
NEWARK—Automotive Safety Inc.
NEW HAVEN—Connecticut Wheel & Rim Co.
NEW ORLEANS—Southern Wheel & Rim Co.
NEW YORK—Wheels, Incorporated
OKLAHOMA CITY—Southwest Wheel, Inc.
OMAHA—Morgan Wheel & Equipment Co., Inc.
OMAHA—Omaha Rim & Wheel Co.
PEORIA—Peoria Wheel & Rim Co.
PHILADELPHIA—Ray Wheel Sales Co.
PHILADELPHIA—Thomas Wheel & Rim Co., Inc.

"...but this isn't a Budd cap nut!"

Smart man.

Since he's spending good money, he *insists* on the best wheel parts available ... genuine Budd parts.

Genuine Budd parts are widely imitated, but they're *never* equalled in quality.

The Budd method of making wheels, hubs, drums and other wheel parts has been developed and *perfected* over a span of 35 years. The same high engineering standards used in designing Budd wheels are also used in producing parts to *fit* those wheels.

That's why genuine Budd wheels and parts are an investment in safety and dependability.

Be safe. Be sure. Be *certain* to specify genuine Budd parts.

Remember, if it isn't Budd, it isn't the best.

THE BUDD COMPANY, Detroit 15



PITTSBURGH—Wheel & Rim Service
PORTLAND—Six Robbins', Inc.
PROVIDENCE—New England Wheel & Rim Co.
RALEIGH—Carolina Rim & Wheel Co.
RICHMOND—Dixie Wheel Co., Inc.
ROCHESTER—Frey, the Wheelman, Inc.
SALT LAKE CITY—Henderson Rim & Wheel Service
SAN ANTONIO—Southwest Wheel, Inc.
SAN FRANCISCO—Wheel Industries, Inc.
SEATTLE—Six Robbins', Inc.
SOUTH BEND—Wheel & Rim Sales Co.
SPOKANE—Bearing & Rim Supply Co.
SPRINGFIELD, ILL.—Illinois Wheel & Brake Co.
SPRINGFIELD, MO.—Borwein, Young & Co.
ST. LOUIS—Borwein, Young & Co.
ST. PAUL—Wheel Service Co.

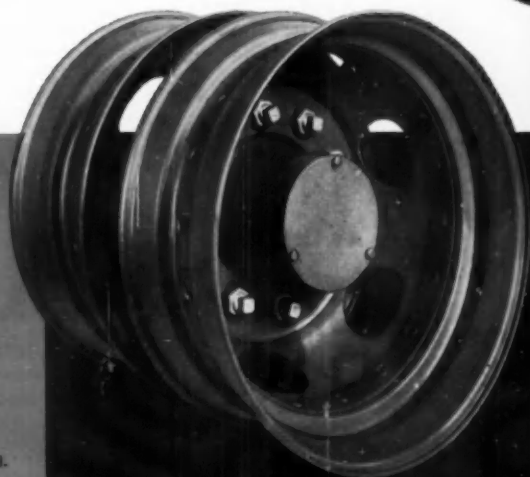
SYRACUSE—Wheels, Incorporated
TACOMA—Six Robbins', Inc.
TOLEDO—Wheel & Rim Sales Co.
WICHITA—Borwein, Young & Co.
WINSTON-SALEM—United Automotive Service

EXPORT

CLEVELAND, OHIO—C. O. Brenden, Inc.
4800 Euclid Avenue

CANADA

CALGARY—Mutual Supplies, Ltd.
EDMONTON—Alberta Wheel Distributors, Ltd.
MONTREAL—Auto Wheels & Supplies, Ltd.
REGINA—Brakes & Wheels, Ltd.
TORONTO—Wheel & Rim Co. of Canada, Ltd.
VANCOUVER—Wheels & Equipment, Ltd.
WINNIPEG—Fl. Garry Tire & Auto Supplies, Ltd.



Mack's New G Series

Continued from Page 114

Entire cab shell is suspended on this with a three-point rubber mounting. Design aims to eliminate body twisting and wracking.

Cab tilts forward to give access for service using a manually-actuated hydraulic power unit. Com-

partment doors in cab give access to voltage regulator, wiper motors, fuse box.

Standard transmission on the G Series is Mack's TRDL72 10-speed, direct-in-10th, Duplex. Options include the Duplex with overdrive,

the TRDL725 10-speed Unishift with direct or overdrive in 10th, the TRTL72 15-speed Triplex.

Other variations available include the TR720 5-speed with overdrive with (1) 3-speed auxiliary or (2) 2-speed rear axle.

On the 4-wheel models, standard rear axle is Mack's RADL5151 with CRDL carrier. Ratios are 4.39, 5.07, 5.46, 6.45. Optional single-speed rear is the RADL5152 with the same ratios. Two 2-speed rears are offered as options—the RA2DT521 and 5211—for use with 5-speed transmission and disc wheels. Carrier is the CR2D with ratios of 4.77-6.38, 5.54-7.42, 6.26-8.38.

On 6-wheel models, the SWDL56 bogie is standard with the SWDL-561 optional. Ratios are the same for both—4.45, 5.08, 5.77, 6.45.

END

Please Resume Reading Page 115

Superior sealants insure superior repairs

PERMATEX SEALANTS HELP KEEP FLEETS ON THE ROAD LONGER

Just as all repair jobs are not alike . . . all sealants are NOT alike. Permatex tailors them to the job . . . gives fast or slow . . . hard or soft setting . . . with special properties as needed. Stock them *all* for best results, and keep vehicles rolling.

 <p>FORM-A-GASKET NO. 1 dries fast, sets up hard, for permanent assemblies. Withstands heat and pressure.</p>	 <p>FORM-A-GASKET NO. 2 dries slowly, remains pliable, for reassembly work. Permits connections to be taken apart.</p>	 <p>FORM-A-GASKET NO. 3 is brushable liquid, sets tacky, for lubricating close-fitting parts for easy assembly.</p>	 <p>GASKET CEMENT is extra heavy adhesive liquid, sets slowly. Has 5 times heat resistance of ordinary shellac.</p>
 <p>PIPE JOINT COMPOUND NO. 51 seals hot and cold water, steam, illuminating gas, fuel oils, kerosene, and lubricating oil.</p>	 <p>SUPER "300" FORM-A-GASKET sets slowly, is formulated to resist "washing" action of detergent additives.</p>	 <p>STICK-N-SEAL is tacky on application, sets quickly. Liquid synthetic rubber unaffected by gasoline and lubricants.</p>	 <p>INDIAN HEAD GASKET SHELLAC COMPOUND is carefully compounded, economical. For general assembly work.</p>

...MADE FOR THE PROFESSIONAL!
PERMATEX

COMPANY INCORPORATED
300 Broadway, Huntington Station, L. I., N. Y.
Factories: Brooklyn, N. Y. • Kansas City, Kan.

Convertible Flatbed . . .

Continued from Page 115

The "J-Rail" frame beams have U. S. Steel's T-1 steel flanges, high tensile steel webs. Connecting these are high-tensile steel, floor-carrying I-beams. These extend out beyond the "J-Rail" frame to allow maximum loading.

"J-Rail" gets its name from its shape, has only an outside flange at bottom—as compared to the conventional I-beam.

Outer rail is a rolled shape to form its own rub rail and to hold the stake pockets.

Trailer is designed for any type of suspension—standard, 9-ft spread, air suspension or sliding tandem.

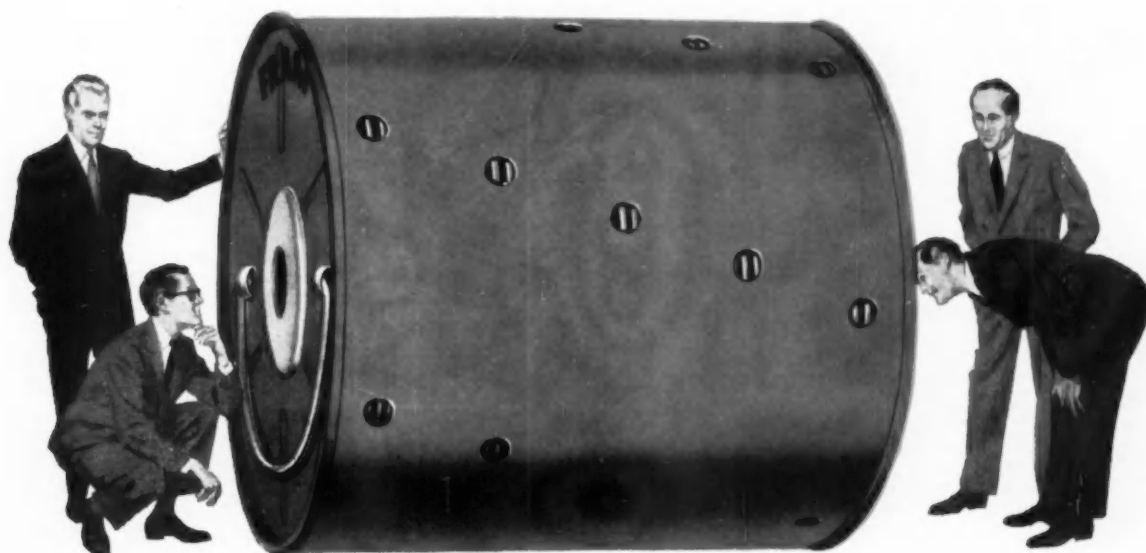
T-1 steel is used for strength plus light weight. For example, Trailmobile says the lightest weight version of the new model in 35-ft length with extruded aluminum floor weighs about 9700 lb.

Trailer is designed for up to 72,000 lb GCW or about 50,000 lb of distributed load.

END

Please Resume Reading Page 116

Here's where people see eye to eye...



With folks who know filters...

FRAM RANKS FIRST!

Fleet Owners choose FRAM for economy!

Fleet case histories show that after installing FRAM, down-time can be reduced as much as 50%.

Engine-manufacturers choose FRAM for dependability!

FRAM Filters are original equipment on more cars and trucks than any other make!

People choose FRAM for quality! U. S. survey shows: Among people who know filters by name . . . more rank FRAM first for quality than any other filter!



FRAM CORPORATION, Providence 16, R. I.



MEET J. P. CARCIA, SR.

Yard Supervisor, Marion Coal & Supply Co., Pittsburgh, Pa.

...and learn what experience teaches about tires!



Operating within a twenty-mile radius of Pittsburgh, the Marion organization supplies mixed concrete, sand, gravel, concrete blocks and other construction materials to major projects in its area. The company is now supplying concrete for the new Fort Pitt Tunnel. It also played an important part as a supplier of concrete for Pittsburgh's Renaissance.

Mr. Carcia's experience has proved to him that Kelly Tires serve him best. "I find that Kellys are surprisingly tough. With our heavy loads and rough going, we really torture tires. But with Kellys on our vehicles, that's no problem. In addition to being so outstandingly dependable Kellys also are economical—they give us unusually long service on the original tread and then on recaps."



NYLON
TRACTOR RIB

NYLON
DUAL TRAC

NYLON
C. H. T.

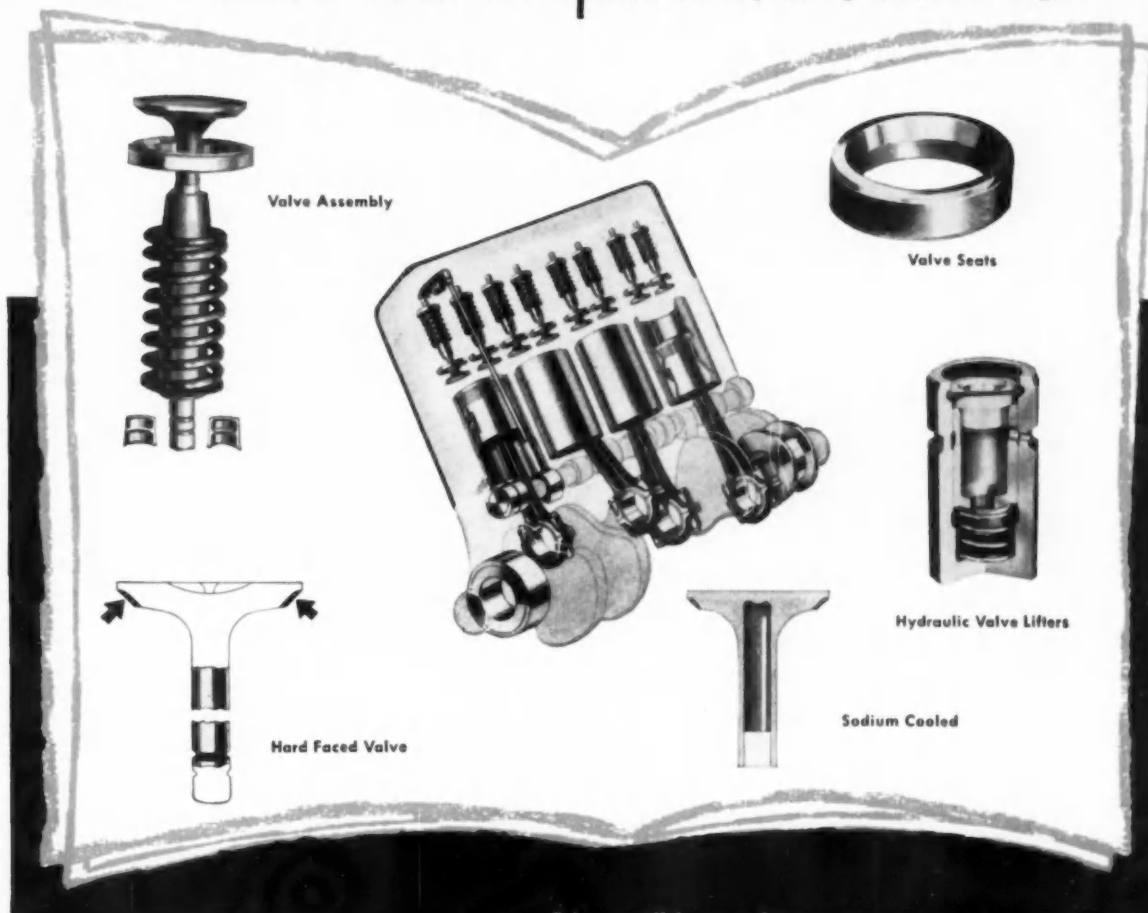
NYLON
SUPER ARMOR TRAC

KELLY
Springfield
TIRES

...THE SIGN OF
BONUS TRUCK
TIRE MILEAGE!

THE KELLY-SPRINGFIELD TIRE COMPANY, CUMBERLAND, MD. • THE KELLY-SPRINGFIELD TIRE COMPANY OF CANADA, LTD., TORONTO, ONTARIO, CANADA

Thompson Products wrote the book on valves and complete valve service



Rotocap
(positive type)



Rotovalve
(release type)



Rotocoil
(positive type)

Sold thru the world's finest jobbers

It's a well-known fact among automotive engineers and repairmen that Thompson Products pioneered and developed just about every major valve improvement made during the past 50 odd years. Thompson literally wrote the book on valves and valve service.

When you specify and install Thompson Products valves and component parts, you get the best there is — "original equipment precision parts" from the world's leading valve manufacturers.



Thompson Products

Replacement Division

Thompson Ramo Wooldridge Inc.
Cleveland 3, Ohio

... a Mountain of Safety Trophies

Continued from Page 127

every case) that sooner or later when the clearance is less than 18 in., the bottom of a dolly will catch a railroad track or some other raised object in the road. The result: The dolly is torn off.

We use only 1/2-in. air lines on our trucks and to the tank trailers.

We have found that it is almost a certainty that at some time a heavy object will be dropped on an air line. If it is a 1/4-in. line, the point of contact will soon be sealed off.

I don't know how much experience most operators have had

with children wanting to hang on the back end of trailers and climb the ladders or hitch on. We worry about this sort of thing.

One remedy is to mount the ladder on the front end of the trailer directly behind and to the left of the cab where the driver has good visibility of the ladder. We have tow eyes and tow hooks on our trucks. They are mounted under the bumper in a position inaccessible to children for hitching rides.



AERO-SEAL JET Clamps hang on so tightly that no amount of vibration can shake them loose. Exclusive patented feature permits quick installation with just a few turns of the precision worm drive screw. And they can be removed in a jiffy. AERO-SEALS will last for years and are re-usable. Bands and housings are of 302 - 18 - 8 stainless steel. All stainless also available. They won't pinch or damage hose. Forget cut-rate "look-alikes." Genuine AERO-SEALS sell faster — and satisfy. No extra price for Jets. AERO-SEAL REGULARS if you prefer.

Aero-Seal JET
QUICK-ATTACH HOSE CLAMPS

We have installed an

anti-jackknife device on all our trucks. It is attached to the frame on the tank. When the driver turns, the tail of the fifth wheel comes in contact with a pin that prevents further turning.

In our operation, we do not look with favor on manhole covers and dome covers made of cast aluminum. We feel this material has a low strength and is the cause of many fires following overturns. We use pressed steel covers and have a ball check valve that permits vapor to escape under pressure but when truck overturns the valve will close preventing spillage.

All of our units have vapor-proof wiring in conduit and vapor-proof light fixtures. We use only tubeless tires. These are, in our experience, good insurance against tire fires. We use expanded metal for safety treads on ladders and catwalks. Abrasive paints or other abrasive coatings soon wear off.

END

Please Resume Reading Page 128



ECHLIN HAS TRANSISTORIZED IGNITION

In our opinion, transistors of reliable characteristics for ignition purposes are not yet available at a price that makes transistorized ignition economically practical. ECHLIN Transistorized Ignition is therefore not now being offered to the service trade. Its use is limited, presently, for experimental purposes. Watch for future announcements of its availability.



THE ECHLIN MANUFACTURING COMPANY • BRANFORD, CONN., U. S. A.
IN CANADA: ECHLIN IGNITION OF CANADA LTD., TORONTO

ROSS and WHITE BONUS VALUE

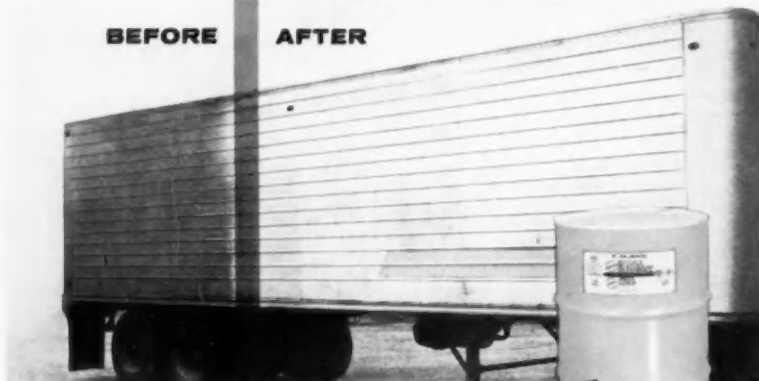
INTRODUCTORY OFFER

try

DUAL BRIGHT* 35...at our risk!

BEFORE

AFTER



Get this 10-Gallon Sprayer FREE

by participating in our introductory offer!

HERE'S HOW IT WORKS!

At your request, we will send you a 55-gallon drum of DUAL BRIGHT 35; a 10-gallon Pressure Sprayer; and complete information on how you can get this sprayer FREE while earning a special discount rate on the DUAL BRIGHT 35, at no obligation to you.

Try DUAL BRIGHT 35 on your aluminum and stainless steel vans and trailers at our risk. If you are not completely satisfied, you can return the unused portion and sprayer to us at no charge to you. DUAL BRIGHT 35 is unconditionally guaranteed.

Just fill in the coupon below, attach to your letterhead and mail now.



UNCONDITIONALLY
Guaranteed

* A Low cost, fast acting BRIGHT-ENER AND CLEANER for ALUMINUM AND STAINLESS STEEL vans and trailers. Cleans in one easy, fast application!

- Unconditionally Guaranteed
- Completely deoxidizes Aluminum and Stainless Steel with fast, chemical action.
- Cleans off grease, dirt, oil, diesel smoke stains, etc. at same time.
- Will not affect painted signs.
- No streaking
- ✓ Costs less to use, mixes with water.
- No fumes, no objectionable odor.

Manufacturers of: "Blackhall" Stationary Washers • "Wilson" Portable Washers
"Front-Sides & Back" Trailer Washer • "Buck" Cyclone Cleaners

ROSS AND WHITE COMPANY

Chicago Daily News Building
Chicago 6, Illinois

0-581

ROSS and WHITE Company, Dept. CC-6
Chicago Daily News Building, Chicago 6, Ill.

☐ Ok, Send me the complete package on your introductory offer to try DUAL BRIGHT 35 at your risk.

☐ Send me complete information on your introductory offer... Do not send DUAL BRIGHT 35 or sprayer yet.

Name..... Title.....

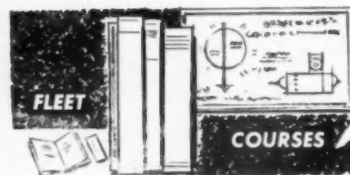
Company.....

Address.....

City..... Zone..... State.....

No. of unpainted Aluminum or Stainless Steel vans or trailers.....

Offer good only in Continental United States



HERE is the latest calendar of fleet training courses for 1959. For complete addresses to write to for further information concerning the courses listed, see the Fleet Course Directory beginning on page 118 of the November '58 issue.

Driver Trainer

University of Utah—Sept. 21-25.
Pennsylvania State University—Sept. 28-Oct. 2.

Driver Training

North Carolina State College, Extension Div. Four-week courses beginning on the following dates: June 22, July 27, Aug. 31, Sept. 28, Oct. 26, Nov. 23.

Fleet Maintenance

Purdue University—Oct. 5-9.

Fleet Supervisor

Northwestern University—June 22-26.
Pennsylvania State University—Sept. 14-18.
Purdue University—Sept. 14-18.
Ontario Safety League (Toronto, Canada) Sept. 21-25.

Dodge Diesel

Continued from Page 116

gine Dodge refers to as the "all-new" C175.

Ratings on the new models will range from 27,000 to 53,000 lb GVW and from 50,000 to 76,800 lb. GCW—15 per cent higher than at present.

And to give an idea of at least one direction Dodge is looking, Dodge General Manager M. C. Paterson says, "This GCW of 76,800 lb will enable our new trucks to carry virtually any product and commodity in over-the-highway operations in the highly-dieselized Western states."

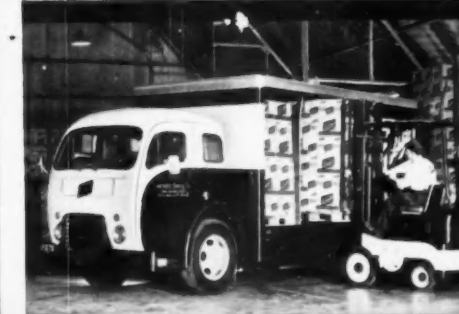
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Please Resume Reading Page 124

COMMERCIAL CAR JOURNAL, June, 1959



Deliveries go modern with **WHITE 3000**



**America's
Most Useful Truck**



This is the WHITE 3000—proving its profitability in another tight spot

SUPER HAULER

with city maneuverability

This big, brawny beauty can wheel around a tight city turn or haul on the highway with equal ease.

You've probably seen it (as a tractor or a truck) delivering groceries, milk or soft drinks to your supermarket. Or out on the job for your public utility. Or it may have backed up to your house to move your furniture cross-country. If you marvel at its maneuverability, you're in good company. Most people do.

Next chance you get, take a close look at it. Notice how you can slide out either side of that roomy cab. Then take a peek at the powerful WHITE engine. It's easy. The whole cab tilts forward automatically when you turn the power-tilt control. (WHITE originated and perfected the power-tilt cab!)



Slide out either side — no floor obstructions.

While you're at it, look over the superb construction of this tractor. That rugged frame, with its tubular cross-members, is locked together with precision-fitted alloy steel, heat-treated bolts. No flimsy rivets in this frame assembly.

You'll find that kind of extra care and pride built into every inch of every WHITE in the famous 3000 line. If you need one for your business, you can choose from a wide range of truck and tractor models. Each one is built to your



Power-tilt cab tips hat to big WHITE engine.

exact specifications. So you get the exact weight, dimensions, axles, transmission — the precise performance — you need. This takes a rare quality of engineering skill — a quality found in quantity nowhere but WHITE.

And, speaking of skill, you'll find it in WHITE service, too. WHITE service shops are the most completely equipped in the industry for repairs, parts, rebuilding or exchange.

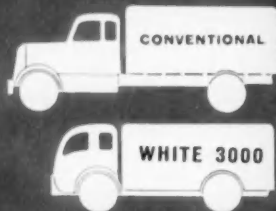
Take a look at the whole WHITE line. You'll be glad you did, in the long haul.

THE WHITE MOTOR COMPANY
CLEVELAND 1, OHIO

Branches, distributors, dealers in all principal cities

WORLD LEADER IN HEAVY DUTY TRUCKS


WHITE



Designed for maximum efficiency on city streets or open road

No other truck does so many jobs so well! In every type of delivery service, the WHITE 3000 helps make more deliveries possible every working day . . . helps lower cost per unit delivered.

Its shorter wheelbase, wider tread front axle, shorter over-all length and shorter turning radius give it unequaled maneuverability . . . make it America's most agile heavy-duty truck!

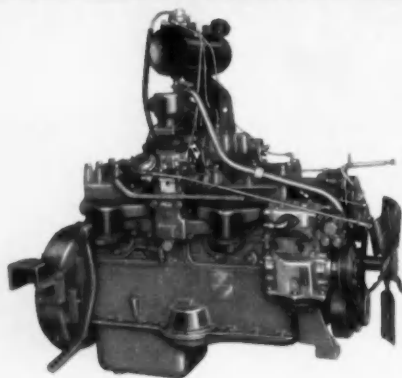
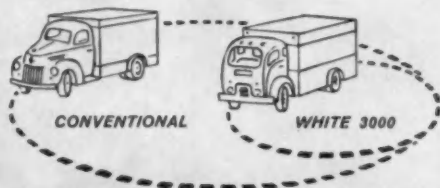
Its ideal weight distribution provides driving ease and

greater economy on long hauls—and increases payloads as much as 3000 pounds!

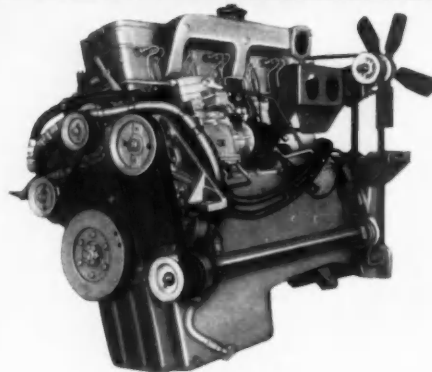
The big, roomy cab offers better visibility in all directions, comfortable, adjustable seats, superior ventilating system. Cuts driver fatigue to a minimum.

WHITE 3000 design lowers body height as much as seven inches for easier, faster loading and unloading. And this design stays young so your WHITE stays new, year after year . . . making it a *protected investment!*

IMPROVED MANEUVERABILITY— design features of the 3000 save time backing into drives, parking or turning on narrow streets.



FAMOUS WHITE MUSTANG ENGINES. Greater life than ever before! New efficiency, improved gasoline mixture flow. Models from 145 H. P. to 180 H. P.



BIG NH-180 DIESEL. Unmatched performance, longer life, and lower maintenance cost. Delivers 180 H. P. and combines new fuel economy with reduced weight per H. P.

CALL YOUR WHITE REPRESENTATIVE TODAY!

There is a wide choice of options in wheelbases, axles, transmissions and other units to permit engineering the WHITE 3000 to your exact operating conditions.

WORLD LEADER IN HEAVY DUTY TRUCKS



WHITE

"At-the-Brewery Taste"

Continued from Page 137

of van doors permitted a free flow of outside air in and around the kegs.

To get better temperature control, Rainier called in refrigeration engineers from W. E. Stone and Co., Seattle, to work in co-operation with the George Heiser Body Co. Using a Brown "Cargo Van" kit, a special body was designed to best suit Rainier's needs.

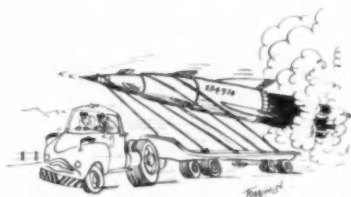
The body was made 14 ft in length with inside dimensions of 13 ft 4 in. long by 7 ft 3 in. wide by 6 ft 4 in. high. Doors were set in both sides and in the rear. Styrofoam and fiber glass were used to insulate the body which was mounted on a Ford C-600 tilt-cab chassis.

A Mark 500 BLS Kold-Hold refrigeration unit, made by Kold-Hold Division, Tranter Mfg. Co., was mounted on the truck frame under the body. The unit is driven through a flexible shaft, linked directly to the engine by a V-belt pulley mounted near the front. Chilled air is circulated in the truck body by fans mounted on refrigeration coils near the front ceiling.

Seattle Tent and Awning Co. was called in to help with the problem too. It suggested the use of a neoprene-impregnated curtain. Studies by the Dept. of Agriculture were cited to show that such curtaining could keep loads about seven degrees colder.

Curtain has an aluminum finish outside to reflect or hold back heat and is black inside to hold in the

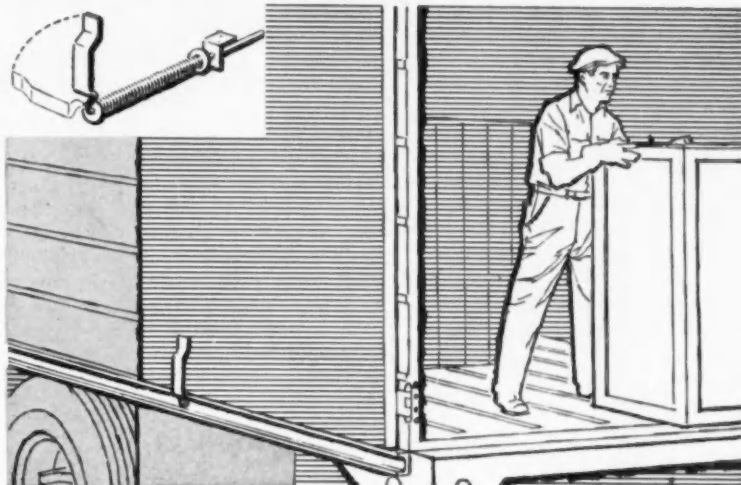
(TURN TO PAGE 162, PLEASE)



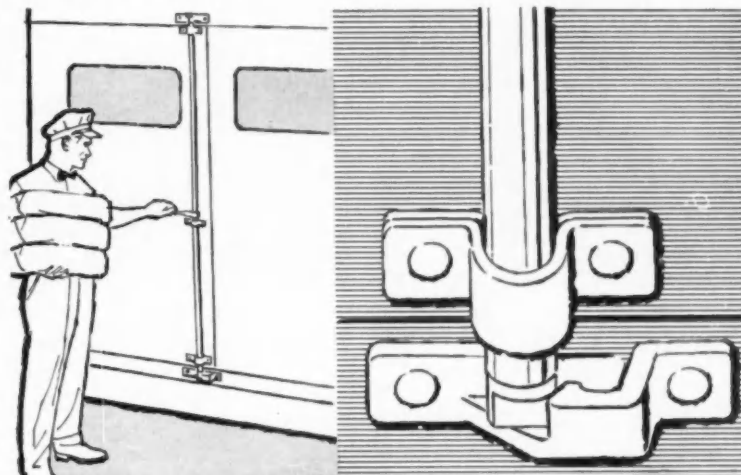
"I've warned you not to toss cigarette butts out the window!"

COMMERCIAL CAR JOURNAL, June, 1959

HARDWARE *Cleveland* **NEWS FROM**



NEW . . . SPRINGLOADED VAN-DOOR HOLDFAST. Pull, Turn and Let Go! No fumbling even with gloved hand. Doors are positively locked to trailer sides. Complete with forged mounting bracket, heavy-duty spring, hardened shaft, and rugged, comfortable handle. Mounts securely under flooring. Worth many times its low cost.



NEW . . . CAM LOCK by Cleveland. Exclusive 2-way cam eliminates truck door shifting. Forged cams and pockets reduce vibration wear. Stronger, yet weighs 25% less. Cleveland Cam Locks are universal for right or left hand doors. Cadmium plated. Ask about the low cost. For complete information, write today: *Forge & Fittings Division, H. K. Porter Company, Inc., 3270 East 79th St., Cleveland 4, Ohio.*

FORGE AND  FITTINGS DIVISION
H. K. PORTER COMPANY, INC.

PORTER SERVES INDUSTRY: with Rubber and Friction Products—THERMOID DIVISION; Electrical Equipment—DELTA-STAR ELECTRIC DIVISION, NATIONAL ELECTRIC DIVISION; Copper and Alloys—RIVERSIDE-ALLOY METAL DIVISION; Refractories—REFRATORIES DIVISION; Electric Furnace Steel—CONNORS STEEL DIVISION, VULCAN KIDD STEEL DIVISION; Fabricated Products—DISSTON DIVISION, FORGE AND FITTINGS DIVISION, LESCHEN WIRE ROPE DIVISION, MOULDINGS DIVISION; and in Canada, Refractories, "Disston" Tools, "Federal" Wires and Cables, "Nepcoduct" Systems—H. K. PORTER COMPANY (CANADA) LTD.



Stop ignition troubles before they stop your trucks



Revolutionary Blue Streak *LubriPoints*[®]

Long-haul or stop-and-go—no matter what kind of trucking you do—you want contact points that will take a beating and keep working. That's why Blue Streak makes revolutionary heavy-duty *LubriPoints*... the premium points that stay "in tune" longer.

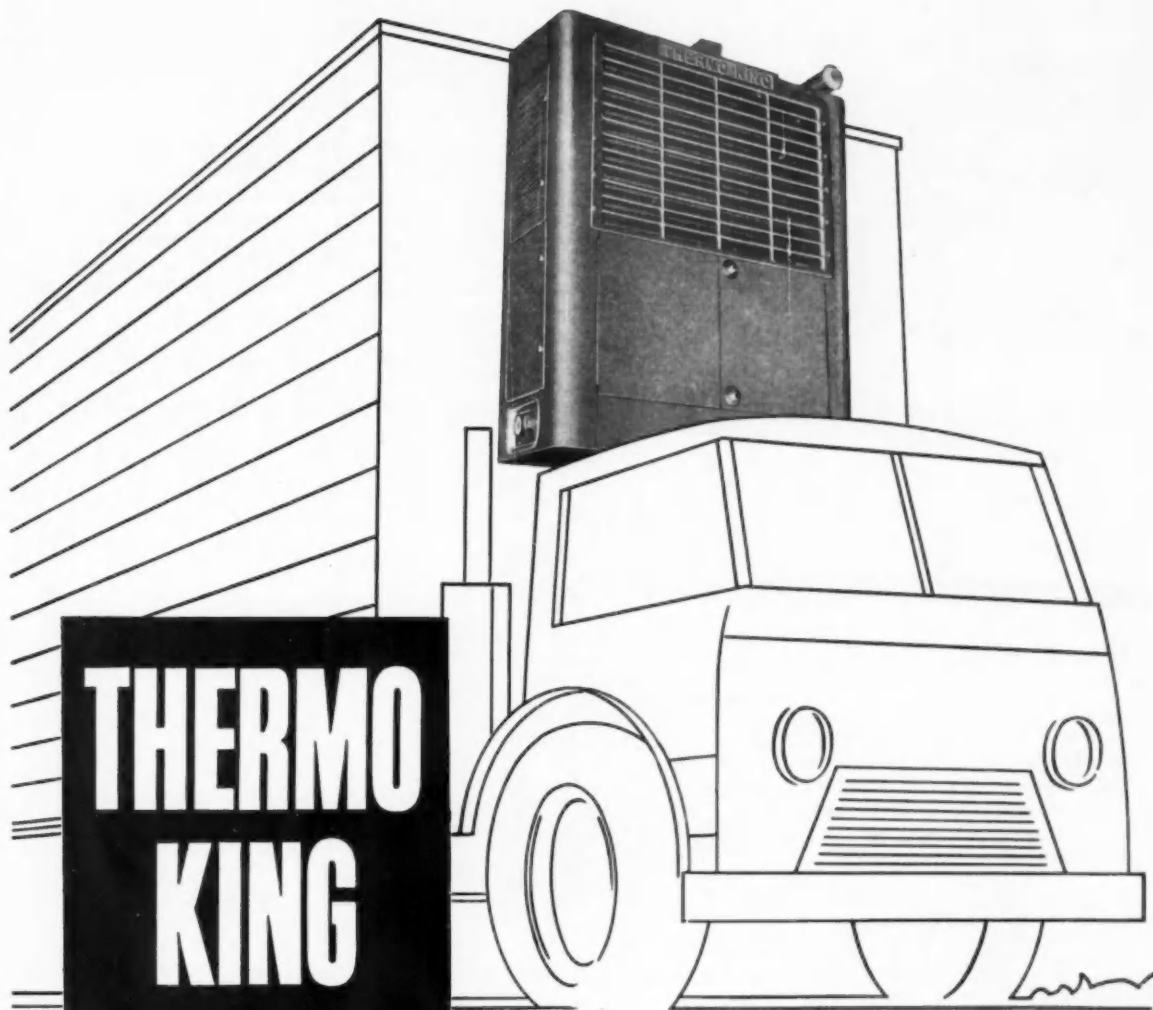
Here's how LubriPoints work: The Blue Streak Lubriwik (1), constantly applies lubricant evenly over the cam (2) to prevent rusting, prevent excess wear of rubbing block (3), help maintain correct

point gap (4). In addition, the contacts are 50% larger to insure quicker starts, longer life, smoother performance. But, technical details aside, the point to remember about these amazing *LubriPoints* is this: They keep your maintenance costs down; they keep your dependability up. Smart fleet operators ask for them by name.

There's a Blue Streak distributor in your territory. He'll be happy to advise you, or write for catalog to: Standard Motor Products, Inc., Long Island City 1, N. Y.

Blue Streak...Pioneers in Heavy Duty Ignition

REGULATORS • SWITCHES • COILS • CONDENSERS • CONTACT POINTS • WIRE and CABLE



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- ECONOMY
- SELECTION



First Choice **OF TRUCKERS EVERYWHERE**

In keeping your payload cold you can't beat the reliability of THERMO KING mechanical truck refrigeration. A THERMO KING will hold the temperature range you select, in any size truck or trailer, and do so automatically, economically, and dependably. THERMO KING gives you greatest cooling capacity per dollar . . . coupled with lightest weight and lowest operating cost. The reason? 20 years experience by the world's largest maker of transport refrigeration has perfected these rugged, trouble-free units. A THERMO KING costs less to buy, less to maintain, less to operate than any other kind of refrigeration. See your THERMO KING dealer today.

THERMO KING CORPORATION **World Leader in Transport Refrigeration**

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Thermo King Maintains the Only Nationwide Service and Parts Organization in the Industry



Plastic Containers Haul Dry Ice

For hauling and storing dry ice at minus 110 deg F, these new plastic containers give a 3840 lb increase in legal payload and a 704 lb decrease in dry ice sublimation. Maker is the Odyssey Trailer Co., Santa Ana, Cal. Containers are molded entirely of fiber glass reinforced plastic—including doors, frame and lid. Fiber glass is supplied by Johns-Manville Fiber Glass Inc. Each container shown here weighs 1500 lb. Each holds 21,120 lb of dry ice.

EberHARDWARE

Meets the stringent requirements for RAILWAY EXPRESS BODIES



Body by
Metropolitan Body Co.
Bridgeport, Conn.

Body by
Garstinger Co.
Wooster, Ohio



Body by
The Montpelier Mfg. Co.
Montpelier, Ohio



Body by
W. J. Thiele & Sons, Inc.
Johnstown, Penna.

Convincing evidence of the universal acceptance of Eberhard Truck Body Hardware is presented in these four modern body versions, built to rigid specifications for the RAILWAY EXPRESS AGENCY.

Included in the list of quality components that went into these trucks are (E) hinges, locks, and varied fittings that afford long service with a minimum of maintenance.

It's proven wise to standardize on EberHARDWARE.

EBERHARD MANUFACTURING COMPANY
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DIVISION OF THE EASTERN MALLEABLE IRON COMPANY

LONGRUN

TRUCK BODY
HARDWARE BY

EBERHARD

THE MOST COMPLETE LINE AVAILABLE

"At-the-Brewery Taste"

Continued from Page 159

cold. They were installed on all three doors.

To complete the job, a Ryan recording thermometer was included. It consists of a spring wound motor, a bi-metallic thermometer, a paper tape with room for 33 days of recording and a pen for recording.

Its height is six inches, diameter three inches and weight 2¾ lb. A 100-deg range can be recorded for any span from a minimum of 40-deg to a maximum of 150 deg. They are available in 15-day models also.

The pilot body proved so successful that Sick's Rainier ordered a fleet of six. All are maintained by Sick's round-the-clock garage on Seattle's Airport Way.

At seven o'clock each morning the fleet cools off for an hour. At 8 o'clock trucks line up at the Rainier loading dock to take on board chilled kegs of draft beer. The recording thermometer watches over the kegs during the delivery day from a spot about two-thirds of the way up the side of the body of the van. When the final delivery is made, the temperature still records between 40 and 42 deg.

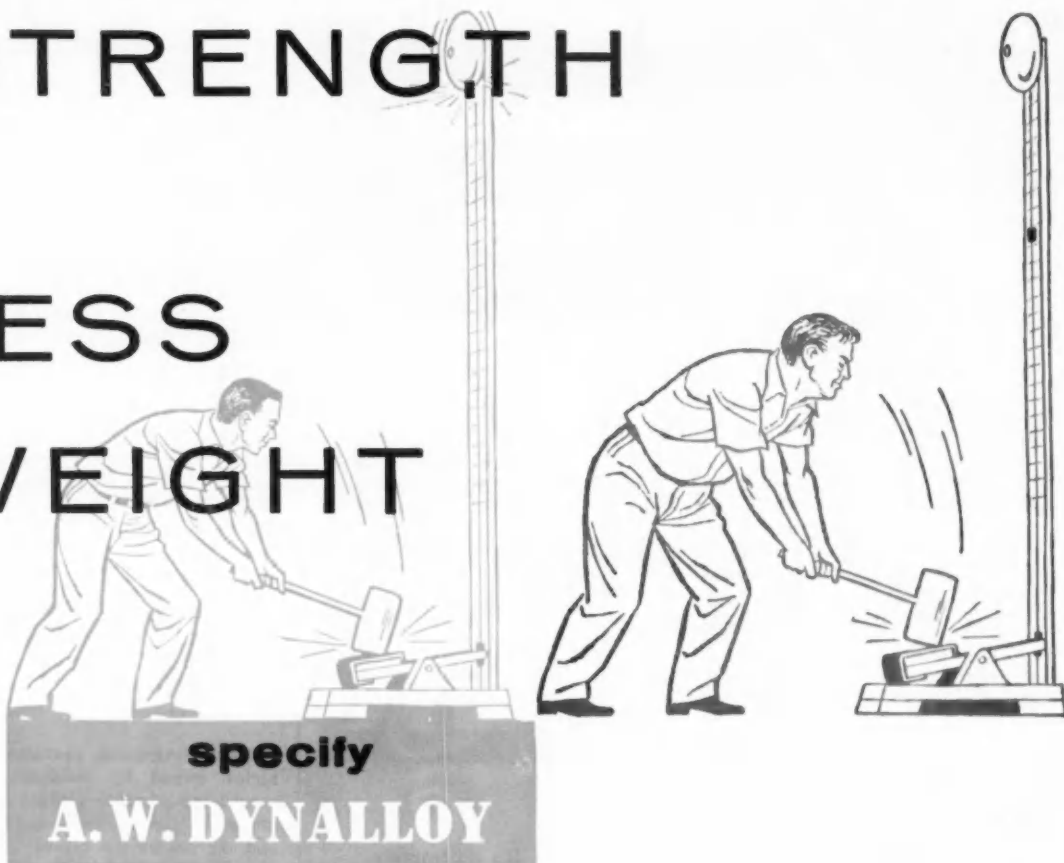
The company also has refrigerated five of its 40-ft trailers with Thermo-Kings. These big units carry 290 ½-barrels comprising a net load of approximately 45,000 lb.

END

Please Resume Reading Page 138

MORE STRENGTH

LESS WEIGHT



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A.W. DYNALLOY

A. W. DYNALLOY Steel provides higher strength per unit of weight... lets you cut weight in fabricated products.

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The reason for Huck's superiority is simple. An intensive continuing development program that produces the "last word" in fasteners for your every requirement, in standard or exotic metals.

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Continued from Page 140

(S484); requires trucks and trailers to display weight classification (H-764); has revised law on common carriers of passengers operating charter services (S213).

Kansas—has increased height limit to 13½ ft (S303); now requires amber turn signals, combination tail and stop lamp, three red cloth emergency flags and prohibits more than one spot light (H114); taxes LP Gas at 5¢ per gal (H352); has fixed new speed limits as follows: passenger vehicles other than buses—70 mph day and 60 mph night, trucks over 5000 lb—50 mph, buses and trucks under 5000 lb—60 mph, school bus—45 mph with 50 mph limit under certain conditions. Limits do not apply to Kansas Turnpike (S100).

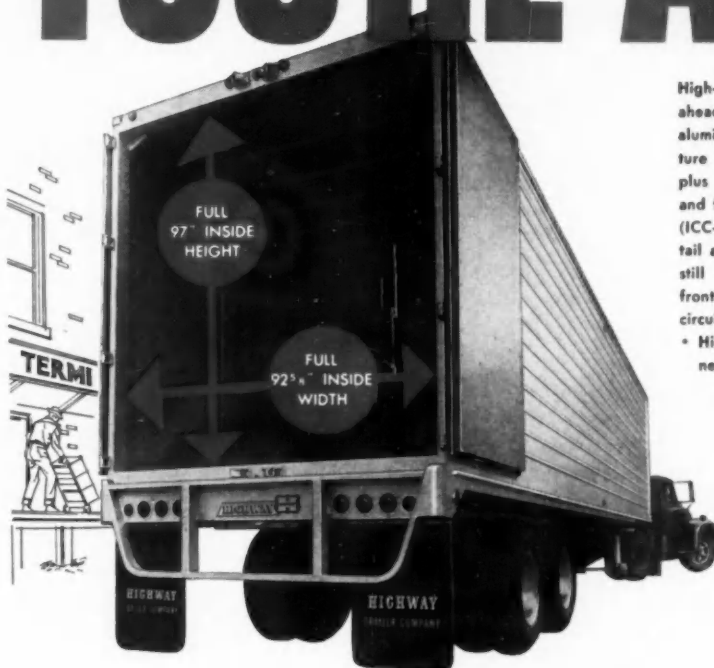
Maine—regulates operation of vehicles owned by residents but licensed out of state (H825); provides authority for hauling baggage, mail and express by bus (H696); has fixed speed limit at 45 mph for school buses and trucks over 6000 lb unless otherwise posted (H375).

Maryland—has amended lighting requirements for lamps and reflectors (H698); permits towns to regulate through truck traffic (H745); has extended present law on tractor and trailer registration fees indefinitely (H254); provides oversize permits and requires \$10 fee for gross weight not more than 45 tons and \$1 for each additional ton (H396).

Massachusetts—requires rental vehicles to have property damage liability insurance (S555).

Minnesota—has increased driver license fee to \$3 for 4-year period (H-1114); now permits two fog lamps, two auxiliary passing lights and two auxiliary driving lights, and requires two tail lights and reflectors, and on all new vehicles except motorcycles and truck tractors requires two stop lights (H265); increased property (TURN TO PAGE 170, PLEASE)

YOU'RE AHEAD

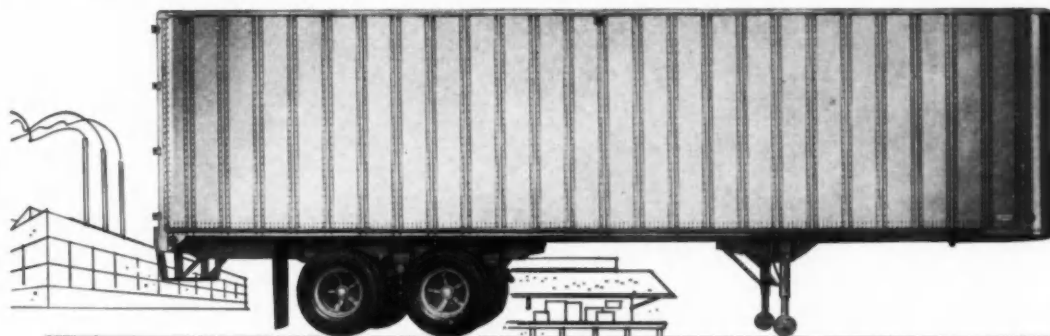


High-cube haulers, here's your chance to put yourself ahead of today's tough competition with these all-new, all-aluminum Highway Super-Econovans. Both models feature Highway's performance-engineered watertight roof, plus new, extruded aluminum rub rail, roof bows, stakes and floor sills. "Level-Floor" design is optional. New (ICC-proposed) three individual rear lights (directional, tail and stop). New, redesigned lightweight suspension still maintains a 10,000-lb. rating per spring. New front connector box with 6-way and 7-way sockets plus circuit breaker protection and emergency quick connectors. Highway stress-panel design (aircraft construction) pioneered by Highway in both steel and aluminum trailers. Whichever unit you buy, whatever your specified options, you can be sure these new Super-Econovans will put you ahead . . . with Highway!

OUTER-PANEL SUPER-ECONOVAN

Full 97" inside height; full 92-5/8" inside width (including liner). Engineered for easy sidewall maintenance. Available in dry freight as well as light, medium, heavy and full reefer insulated vans.

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Full 97" inside height; full 94" inside width. Smooth interior, no sharp edges! Lightweight but super tough—the finest all-aluminum dry freight van ever built!



"Our Ford Super Duties average 5 to 5½ miles per gallon pulling 6400 gallons"

says Sam Browder, Vice President

Harriman Oil Company Inc., Harriman, Tennessee

"Our two Ford F-1000 tractors pulling 6400-gallon semi-trailers haul a million gallons of gasoline a month from the pipeline to our commercial accounts. We also have some smaller Fords that do an excellent job for us around our plants and when it comes to over-the-road hauls, nothing can beat the economy and performance of these two Ford Super Duties.

"We didn't realize how expensive our other tractors were to operate until we replaced them with Fords about a year ago. Our gas consumption with the 477-cubic inch Ford V-8's is running 5 to 5½ miles per gallon compared to only 4 miles per gallon with the 450-cubic inch sixes we had before. Many of the routes in our territory include grades up to 20% and the F-1000's are

climbing them at least one gear higher than the tractors they replaced. This not only gives us better mileage but keeps our engine speeds down for longer life.

"We have over 70,000 miles on each tractor and the only expense we've had has been the usual plugs and points plus an occasional tune-up. Our drivers are real Ford boosters, too! One of them told me recently that his unit was getting better mileage every day. Both agree that the Fords are easier to handle, easier to drive, more comfortable and not as tiring on a long trip. These tractors have built up such a reputation that our men can't leave the keys in the cabs because the other bulk drivers would run around the block to try them out."



NOW! CERTIFIED PROOF!

FORD TRUCKS COST LESS

LESS TO OWN . . . LESS TO RUN . . . LAST LONGER, TOO!

'59 Ford Pickups beat average mile- age of other leading makes by 25.2 % in Economy Showdown U.S.A.

Here at last is certified proof of the differences in gas mileage between six-cylinder pickups . . . evidence that you can use in your operation.

It was compiled by America's foremost independent automotive research firm after testing 1959 six-cylinder, ½-

ton pickups of the six leading makes. All trucks were bought from dealers—just as you would.

The tests paralleled every kind of driving—high speeds and low, open highways and city traffic, even door-to-door delivery. And in every test, '59 Ford Sixes delivered more miles per gallon than any other make. Here are the actual percentages:

'59 FORD PICKUP SIXES GAVE

42.6% better mileage than make "D"

31.1% better mileage than make "I"

25.2% better mileage than make "C"

22.0% better mileage than make "S"

9.6% better mileage than make "G"

Taken together, Ford got 25.2% more miles per gallon than the average of all other leading pickups!

What's the secret of Ford's economy? First, of all pickup sixes, only the Ford Six has modern Short Stroke design which reduces friction and requires less fuel. Second, to this modern engine, Ford has added a new economy carburetor to meter fuel more precisely in both high- and low-speed ranges.

See your Ford Dealer for the full report of Economy Showdown U.S.A. and get the whole story firsthand.

All tests
conducted and results
CERTIFIED
by America's foremost
independent automotive
research organization*

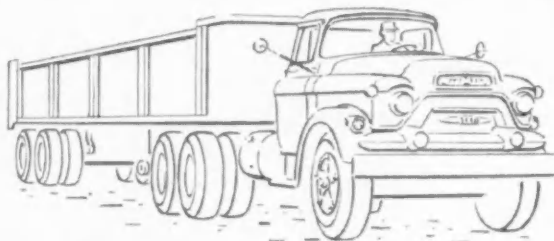
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Send inquiry to P.O. Box 2687, Ford Division
Ford Motor Co., Detroit 31, Michigan

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SPECIAL SPRING ANNOUNCEMENT

Now AC offers new Oil Filters to help



SPECIALLY PACKAGED AND PRICED TO SAVE YOU TIME AND MONEY .

Now . . . for the first time . . . you can get AC quality oil filters specially packaged and priced for your fleet operation.

The new AC Fleet-Packed Filters come in 24 popular types covering 85 percent of all trucks and fleet operations.* They include both full and partial flow types with both sock and paper elements.

Filters are packed in 6-, 12- and 24-unit cartons. Each filter, complete with gasket, is individually wrapped in protective polyethylene.

Available Locally. And here's another important advantage. This new AC line is *available locally!* Order your AC Fleet-Packed Filters in carton lots from your nearby AC wholesaler and get immediate delivery.

Your AC supplier has catalogues, price schedules and complete application information. Call him — right away — for full details.

**Other applications are covered
in the regular AC Oil Filter line.*

SAVE IN THE LONG RUN WITH

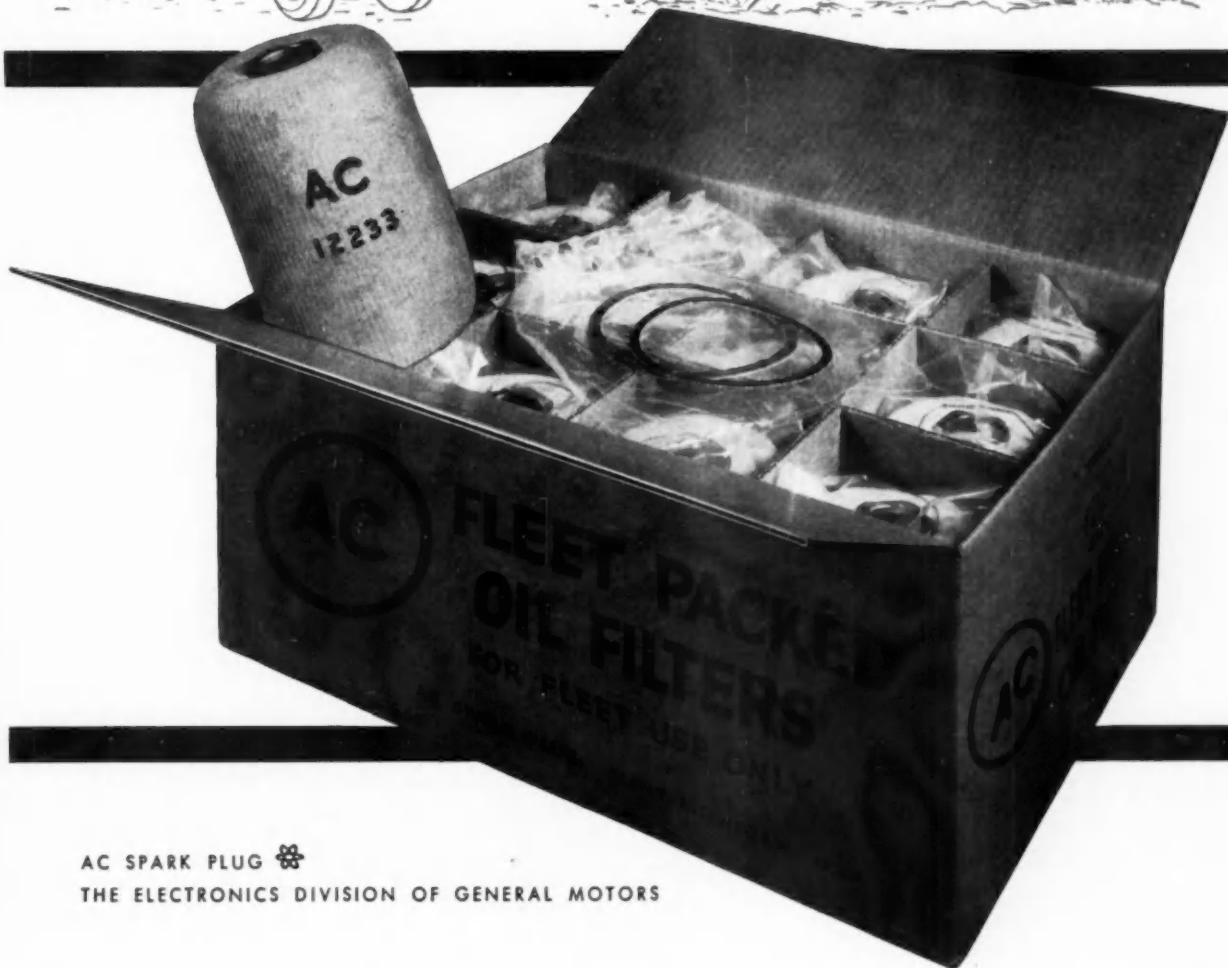
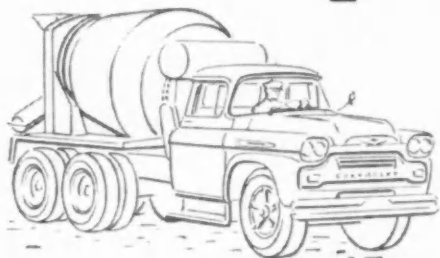
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QUALITY



FOR ALL FLEET OPERATORS

FLEET-PACKED cut operating costs!



AC SPARK PLUG 

THE ELECTRONICS DIVISION OF GENERAL MOTORS

New State Laws

Continued from Page 164

damage requirements to \$5000 (H-266); has amended brake requirements and includes a brake deceleration table (H1144); requires truck and tractor drivers to carry vehicle registration in vehicle (H448); has increased height limit to 13½ ft (S320).

Montana—permits heavier weight on vehicles with axle spacing between 39 and 51 ft, fixes 50 mph speed limit on trucks and tractor-trailers over 8000 lb (H113); requires steel chain or cable safety binding equipment on logging vehicles (S57); provides penalties for exceeding gross weight limit, and limits gross weight to that shown registration and tax receipt (S165); requires gross weight markings on trailers and semi-trailers for which tax has been paid (S156).

Nebraska—allows 40-ft length for

single units, 60 ft for combinations and now permits 3-unit combinations. State also requires driver-operated brakes on each wheel and has changed axle weight table to permit loads to 71,146 lb (LB381); has repealed requirement that buses stop at permanently established state weighing stations (LB409).

Nevada—has exempted passenger cars and pickup trucks from special fuel user permits (H379); has added an additional \$2 registration fee on commercial carrier power units (H-398); has placed household goods carriers under motor carrier regulations (H435).

New Hampshire—has amended registration fees for vehicles used in the poultry business (H245).

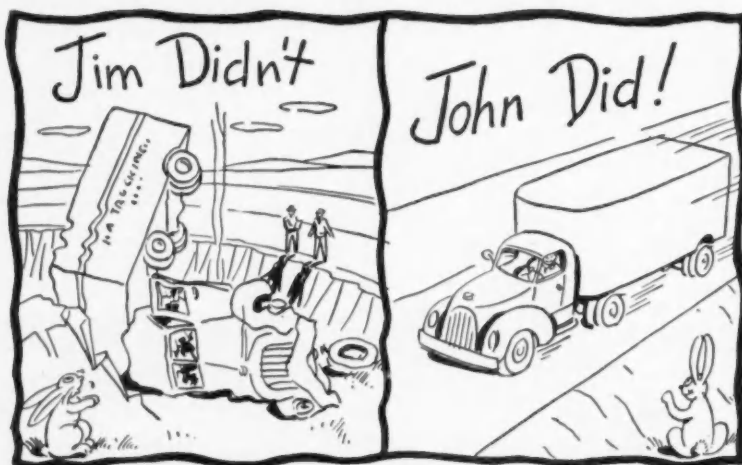
New Jersey—has made an interstate compact with New York to create a metropolitan transit district (H10).

New Mexico—requires registration of nonresident vehicle operated in the state for more than 30 days (H282).

New York—exempts buses from tax on gasoline in excess of 4¢ and on diesel fuel in excess of 6¢ per gal (S1271); gives taxi operators refund on gas tax in excess of 4¢ a gal (S-3549); makes road construction and maintenance machinery used on highways subject to truck registration fees (S1703).

North Dakota—has increased liability insurance requirements to \$10/20/5000 (S222); has increased combination length to 60 ft and permits 3-unit combinations (H615); has increased axle limit to 16,000 lb and gross weight limit to 73,280 lb (H-616).

(TURN TO PAGE 174, PLEASE)



It Pays to Be Sure!

INSIST UPON *Authorized*
MAGNAFLUX* INSPECTION
WITH EVERY OVERHAUL!

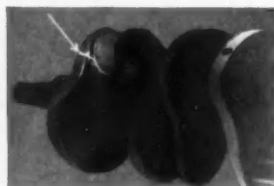
● Authorized MAGNAFLUX inspection is your best safeguard against accidents and high-cost failures. It is the same inspection used by automotive companies to detect defects in parts and materials during their manufacture. It is the only completely reliable test during overhaul to make sure that steering spindles, crankshafts, connecting rods and differential gears are free from cracks—safe to go back into service in your equipment. For longer, safer, lower cost service between overhauls, insist upon genuine inspection with MAGNAFLUX; nationally available exclusively through Authorized MAGNAFLUX Overhaul Shops.



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Fluorescent Magnaglo indication, as discovered on crank throw. Glowing line marks non-visible crack very near to final failure.



Magnaglo inspection of this steering spindle gives clear indication of otherwise invisible serious cracks that could cause failure.

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STRONG ENOUGH TO SUPPORT 165,000 POUNDS OF LOCOMOTIVE*

The bearings in today's engines are exposed to tremendous loads. It wasn't too long ago that a bearing with a load carrying capacity of 2000 pounds per square inch was adequate. But, greater horsepowers . . . higher compression ratios . . . higher rpm's have set new requisites.

That's why Monmouth bearings are designed with such high load carrying capacities. Take

the Clevite 77 bearing for instance . . . it has a load carrying capacity of 7500 pounds per square inch. That fact means a substantial bonus in bearing performance and life on the job.

Always use replacement engine bearings that you can install with confidence . . . specify Clevite 77. Get them from your N.A.P.A. jobber.

*The Clevite 77 bearing referred to here has 7500 lbs. per square inch load carrying capacity and a surface area of approximately 22 square inches.

Monmouth

ENGINE BEARINGS

CLEVITE SERVICE: Cleveland Graphite Bronze • Division of Clevite Corporation • Cleveland 3, Ohio



*The words Monmouth, Clevite and Micro are registered trade marks of Clevite Corporation

THE MATCHLESS TRAILMOBILE TANDEM



Updated for lighter weight and greater stability!

■ 200 pounds less weight

thanks to redesigned rocker beams and method of mounting

■ better performance on curves

new 9-leaf spring pile has greater stability due to low height

■ retains same basic design that has given superior performance for 14 years

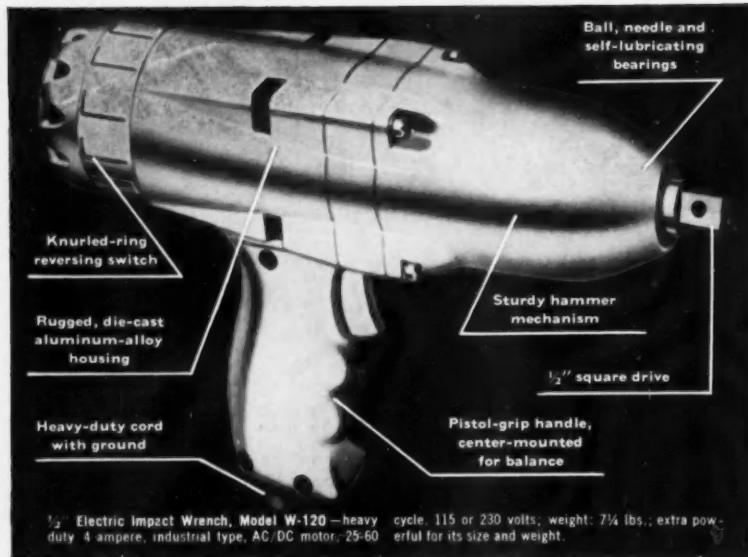
- Famous rocker beam suspension balances braking shocks, eliminates hopping, skipping and uneven brake wear which causes tire "cupping."
- Pre-lubricated phenolic resin bushings end frequent greasing... have large surface area to reduce wear.
- Horizontal radius rods insure proper axle alignment, eliminate "dog tracking."

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TR-790

POWER to boost job efficiency with REMINGTON tools



1/2" Electric Impact Wrench, Model W-120—heavy cycle, 115 or 230 volts; weight: 7 1/4 lbs.; extra powerful for its size and weight.



Non-reversible screwdriver, Model 143S—Capacity: No. 10 wood screws; adjustable slip clutch; precision ball bearings; motor: 1.7 amp., 115 or 230 volts; locking trigger switch.

Powerful, rugged, easy-to-handle Remington Power Tools help you boost output and ease the tough jobs. They're precision-built for long service and minimum maintenance. Your Remington Distributor stocks and services the industry's widest selection of quality power tools and parts.



Reversible screwdriver, Model 143SR—Switch reverses rotation; adjustable clutch for preset tension; rating same as 143S; uses a wide range of finders, bits, attachments.



3/8" Electric drill, Model 381—Compact design with all-purpose speed and rugged power; 800 rpm; 2.5 amps; precision Ball Bearings throughout; geared chuck and key.



Electric bench grinder, Model BG-1—115-volt, 1/4-hp AC motor, dynamically balanced, totally enclosed; wheel size: 6" x 1/4"; sealed bearings; drilled for bench mounting.



Polisher, Model 57P—Capacity 9" bonnet; free speed: 1400 rpm; load speed: 840 rpm; 7.0 amps, AC/DC motor; 115 or 230 volts; heavy-duty precision ball bearings; wt., 19 lbs

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Name _____ Position _____

Company _____

Address _____

City _____ Zone _____ State _____

New State Laws

Continued from Page 170

Oregon—permits State Highway Commission to issue permits for excess length and height and 3-unit combinations (S222); has a new schedule of registration fees for commercial vehicles (S91); has increased length limit to 65 ft without special permit (S225).

South Carolina—requires parking lamp on parked vehicles from half-hour after sunset to half-hour before sunrise (H1197).

South Dakota—exempts highway construction vehicles from registration fees (H906); fixes daytime speed limit at 70 mph, nighttime 60 mph, and truck speed also at 60 mph (H-758); requires clearance lamps on vehicles exceeding 83 in. width (H755).

Tennessee—imposes wheel tax in certain counties (S732, H497, H811); prohibits trip leasing of certificates of convenience (808); exempts private carriers from jurisdiction of PUC if vehicles are used exclusively to haul products in the owner's regular course of business (S523).

Texas—has increased maximum vehicle weight to 72,000 lb (S11); requires mudflaps on dual-wheel trucks or trailers (H99); has reduced bus registration fees (H245); now permits amber parking lights (H375).

Utah—has fixed a 33,000 lb tandem axle weight limit, provides for permits for vehicles up to 25 per cent oversize (H75); authorizes State Tax Commission to charge same fees for non-resident vehicles as are charged Utah vehicles by nonresident's home (TURN TO PAGE 178, PLEASE)



"Okay, Boys, pull the shades!"

Surface flaws can't hitch a ride on TIMKEN® bearing rollers

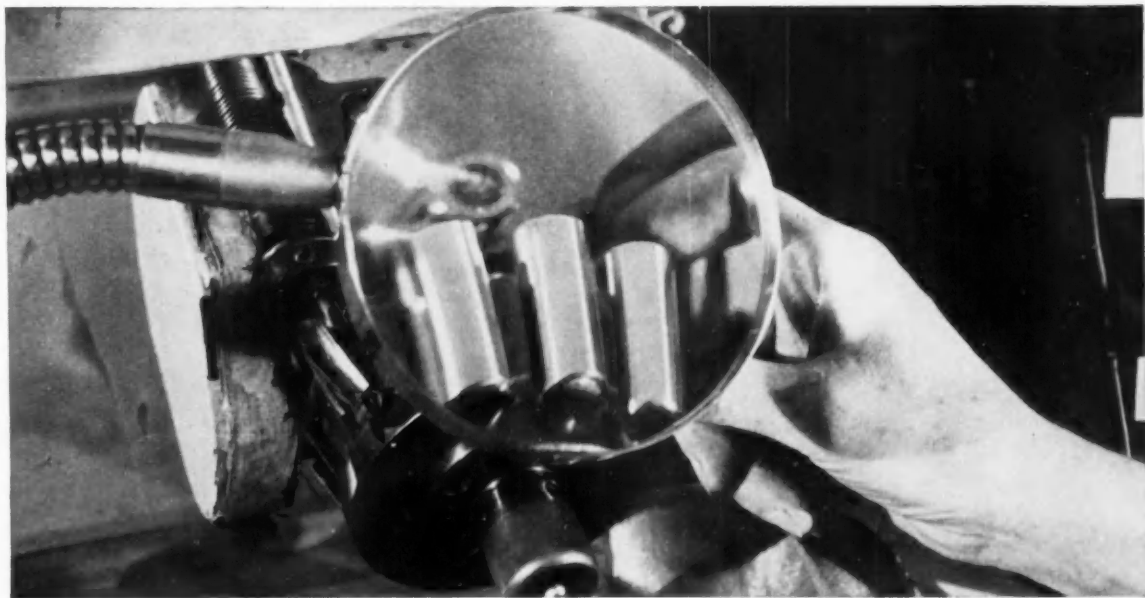
(Another reason why TIMKEN® bearings are first choice with truck manufacturers)

WE overlook nothing to make sure Timken roller bearings are surface-perfect for smoother, longer performance. This extra test shown below assures even greater accuracy. We put rollers under a powerful lens in a search for possible surface flaws. Even the tiniest defect is enough to reject the roller. It's just one of the many inspections that help assure the high quality and smooth rolling of Timken® tapered roller bearings.

And it's another of the reasons behind Timken bearing quality. Right from the start, Timken bearings are geometrically designed to roll true. And they're preci-

sion-made to live up to their design—from steel to finished product. We make our own electric furnace fine alloy steel, to be sure it's the best. No other American bearing maker does. That's why truck manufacturers use more Timken tapered roller bearings than any other make.

That's a good tip for you. Specify *Timken* bearings when *you* need a tapered roller bearing replacement. They're your best bet. Get helpful service information in our free booklet, "The Care and Maintenance of Timken Tapered Roller Bearings in Automotive Equipment". Write Dept. JCC-6, The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".



**SINCE THEY'RE BEST WHEN
THE TRUCK IS NEW, THEY'RE
BEST FOR REPLACEMENT, TOO!**



TIMKEN TAPERED ROLLER BEARINGS ROLL THE LOAD

TRADE-MARK REG. U. S. PAT. OFF.

You don't run bus rims this Firestone rolls 'em for weeks at top



Firestone rims on high-speed buses run hundreds of thousands of miles on the Firestone test track.

This great new rim line available

Akron 7, Ohio—The Motor Rim Manufacturers Co.
Albany 1, N. Y.—Wheels, Incorporated
Albuquerque, New Mexico—Wheels & Brakes, Inc.
Atlanta 3, Ga.—John A. Harris & Son, Inc.
Baltimore 3, Md.—R. W. Norris & Sons, Inc.
Baltimore 25, Md.—Standard Wheel & Rim Co.
Birmingham 3, Ala.—Wheel, Rim & Parts Co.
Boston 35, Mass.—New England Wheel & Rim Co.
Buffalo 3, N. Y.—Frey, The Wheelman, Inc.
Cedar Rapids, Ia.—Des Moines Wheel & Rim Co.
Charlotte 1, N. C.—Carolina Rim & Wheel Co.
Chicago 16, Ill.—Stone Wheel & Rim Co.
Cincinnati 3, Ohio—Rim & Wheel Service, Inc.
Cleveland 1, Ohio—The Motor Rim Manufacturers Co.
Clifton, N. J.—Wheels, Incorporated

Columbus 15, Ohio—Hayes Wheel & Spring Service
Dallas 2, Texas—Southwest Wheel, Inc.
Davenport, Iowa—Stone Wheel & Rim Co.
Dayton 2, Ohio—Rim & Wheel Service, Inc.
Denver 1, Colo.—Quinn & McGill Motor Supply
Des Moines 12, Iowa—Des Moines Wheel & Rim Co.
Detroit 8, Michigan—H & H Wheel Service, Inc.
Detroit 2, Michigan—Rim & Wheel Service Co.
Evansville, Ind.—Auto Wheel & Rim Service Co.
Fairfield, Conn.—Connecticut Wheel & Rim Co.
Fargo, N. Dakota—Wheel Service Co.
Fargo, N. Dakota—Pioneer Rim & Wheel Co.
Fort Wayne, Ind.—Wheel & Rim Sales Co.
Grand Rapids 2, Mich.—Rim & Wheel Service Co.
Harrisburg, Pa.—Standard Wheel & Rim Co.

Hartford 6, Conn.—Connecticut Wheel & Rim Co.
Houston 2, Texas—Southwest Wheel, Inc.
Indianapolis 2, Ind.—Indiana Wheel & Rim Co., Inc.
Jacksonville, Fla.—Southeast Wheel & Rim Co.
Kansas City, Mo.—Borbein, Young & Co.
Knoxville 17, Tenn.—John A. Harris & Son, Inc.
Lancaster, Pa.—Standard Wheel & Rim Co.
Los Angeles 23, Calif.—Motor Rim & Wheel Service
Los Angeles 58, Calif.—Wheel Industries, Inc.
Louisville 3, Ky.—Auto Wheel & Rim Service Co.
Lubbock, Texas—Southwest Wheel, Inc.
Memphis 3, Tenn.—Beller Wheel, Brake & Supply
Milwaukee 8, Wisc.—Wisconsin Wheel & Rim, Inc.
Minneapolis 4, Minn.—Pioneer Rim & Wheel Co.
Nashville 3, Tenn.—Beller Wheel, Brake & Supply

fast, but...

speed to prove performance for you!

Firestone's stress-tested 5° Commander Rim gives full bead support and continuous flange support for maximum tire life, bigger bus fleet profits!

Nobody tests rims like Firestone to meet the demand of today's heavy-duty, high-speed operating conditions. Laboratory and field tests lasting up to three years proved Firestone Steel Products Company's great new 5° Commander far beyond ordinary weight and mileage limits! This rim's exclusive advanced design with full bead support and continuous flange support stands up to the extra stress and strain of extreme loads and speeds—controls the extra pressures developed by today's high-speed tires. With its full bead support, wide base and continuous flange, the improved Commander delivers greater passenger safety at lower cost per mile! Firestone Perma-Plate finish resists rust and corrosion with uniform rim protection. Improved lock ring material helps meet maximum stress needs. Three-piece construction and Firestone's precision sizing assure a true-rolling, money-saving rim. Specify Firestone rims for more tire life and more bus fleet profits.



NEW FIRESTONE 5° COMMANDER RIM

- full bead support
- wide base
- continuous flange
- improved lock ring material

FOR FREE BOOKLET ON FIRESTONE BUS AND TRUCK RIM TESTING PROGRAM, WRITE

FIRESTONE STEEL PRODUCTS CO.

AKRON 1, OHIO

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Light-Duty Schoolbus

Adapted from the International Travelall, this schoolbus model seats 12 children or 10 adults. It has a lowered entrance step, double rear doors, comes equipped with all schoolbus markings, paint and lights. It's available with automatic transmission or four-wheel drive as optional equipment.

Dorman Alloy Studs and Nuts for Dual Wheel Trucks



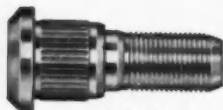
Dual Wheel Nut (Inner)



Dual Wheel Stud



Dual Wheel Nut (Outer)



Single Wheel Bolt

A complete line of replacement studs and nuts for Budd, Kelsey-Hayes and other dual wheels. Manufactured of tough alloy steel to original specifications . . . all sizes plated to resist rust and corrosion. Right and left hand threads maintain safe tightening. Ball face nuts insure alignment of wheel and drum. Also, ask your jobber salesman to show you Section Ten of the *Dorman* Catalog, listing a complete line of bolts and nuts for single wheels. Take advantage of the world's largest line of small automotive parts and fasteners of quality. Look for the *Dorman* Cabinets up-front at your jobber's.



DORMAN PRODUCTS INC., CINCINNATI 27, OHIO • Los Angeles • New York • Toronto

New State Laws

Continued from Page 174

state (H177); requires stopping for school buses loading or unloading passengers (H123).

Vermont—requires mudflaps on any vehicle having four or more tires on the rear axle unless equipped with metal protectors, pole trailers exempted (H208); has amended length and weight limits (H286, H287); provides fines for overweight violations (H-272); makes \$30 fee for local buses permanent (H75).

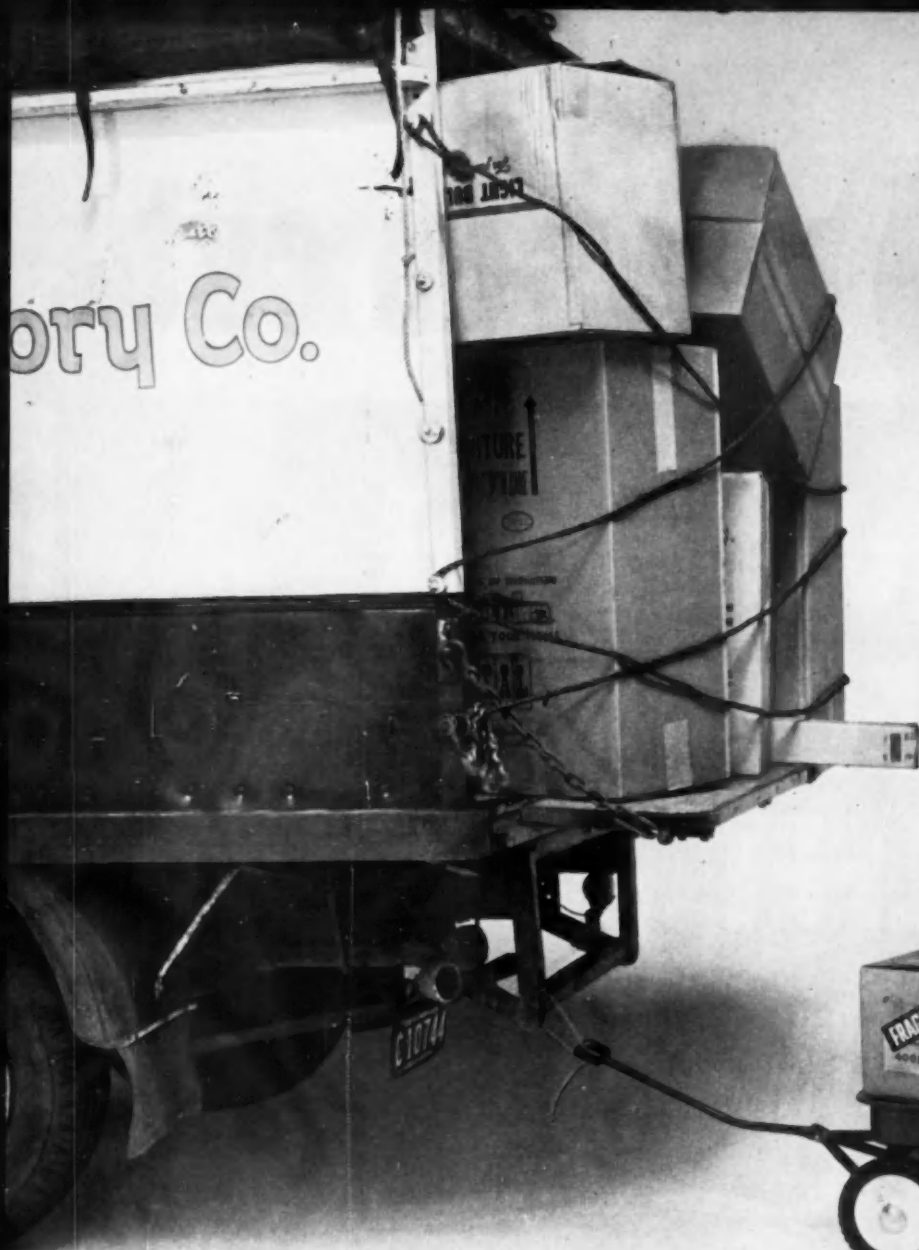
Virginia — permits amber colored parking lights (H58-X); excludes overweight vehicles from Interstate System, changes excess size and weight permits (H86-X).

Washington—has imposed a basic fine for overweight vehicles plus a graduated fine depending on the amount overweight (H100); has increased vehicle use tax to two per cent and sales tax to four per cent (H1-X); authorizes interstate vehicles a length of 65 ft when six of 11 Western states do likewise, increase height limit to 13½ ft, has amended excess size and weight permit fees, requires electric turn signals on vehicles made after Jan. 1, 1960 (H640).

West Virginia—has increased the gasoline tax to 7¢ a gal (S216); has increased truck registration fees by 12½ per cent and set a new fee schedule for cars (S214); has set a road tax on heavier trucks and buses equivalent to and in lieu of gasoline tax (S251); has okayed state and local authorities fixing minimum speed limits (S31); has raised minimum liability insurance requirements to \$10/20/5000 (S194).

END

Please Resume Reading Page 142



**NEED
AN
EXTRA
TRUCK
?**



RENT IT FROM HERTZ

Overloading trucks never pays. Neither does tying up capital in owned trucks that may sit idle, waiting for peak delivery periods.

Renting Hertz trucks solves both problems. You get the added capacity you need for extra jobs, without investing a dime of capital.

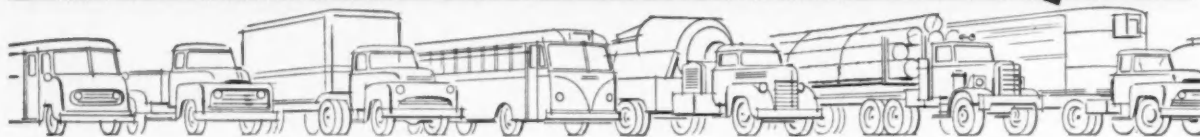
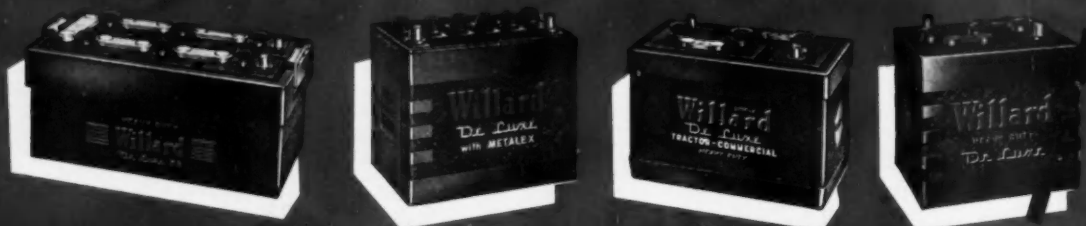
Hertz is America's largest and most experienced truck rental company. We offer a greater variety of Chevrolet, GMC and other modern trucks in more locations, available on short notice, than any other company. Call your local Hertz office whenever you need added truck capacity in its most economical form.



You can also lease Hertz trucks for economical year-round operation

9 ways to cut

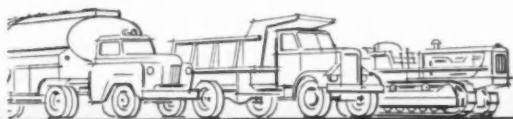
Willard DIRECT BILLING FLEET PLAN



Here's a nine-point plan that guarantees cost, availability and service. It will pay you to know more about this plan . . . it's already being used profitably by many fleets.

your battery costs

- 1 LOCAL AVAILABILITY** —From coast to coast in virtually every market there are Willard distributors to serve your fleet requirements... Willard factory will bill you direct at any point you designate.
- 2 DIRECT FACTORY BILLING** means lower price, therefore, lower cost per mile. One-step billing procedure saves you time and paper work, too.
- 3 NO MONEY CHANGES HANDS** —In the field or at the terminal, all battery purchases are handled by your requisition.
- 4 LOWEST BATTERY COST** —Willard's low fleet prices mean you get the highest quality batteries at the lowest possible prices.
- 5 GUARANTEED PRICES** —Regardless of the battery type or where the battery is purchased, you pay only established factory prices.
- 6 COMPLETE LINE** of Willard batteries for truck, bus, tractor, taxicab, off-the-highway equipment, diesel, for all types of vehicles... dry charged or factory filled.
- 7 GUARANTEED QUALITY** —You get same guaranteed dependability and quality in every Willard battery no matter where it is purchased.
- 8 GUARANTEED OPERATING COST** —All pro-rata adjustments are based on your purchase price. You pay only for service obtained.
- 9 FLEET ENGINEERING SERVICE** —Trained specialists are available to help you solve your technical battery problems.



Get the facts today!

FREE! fleet battery analysis

Let us show you how Willard can fit into your fleet program at a real savings to you. There's no obligation, of course. Fill out the coupon. Mail it today.

There's no contract to sign. If you are not completely satisfied with product or service, you are under no obligation to continue with the program.

WILLARD STORAGE BATTERY DIVISION

P. O. Box 6266—Fleet Engineering Dept. (CCJ)
Cleveland 1, Ohio

Please send details of the Willard Direct Billing Fleet Plan.

Name _____ Title _____

Company _____

Street _____

City _____ State _____

Approximate number of vehicles in our fleet is _____

Coffee Break Increases Production

By Dr. W. Schweisheimer

"FACT FINDERS Associates" sometime ago conducted a survey for the Pan-American Coffee Bureau regarding the influence of the coffee break on production. Nearly 1200 companies were surveyed—large, medium and small.

The survey showed that 82 per cent of the companies found a reduction in worker fatigue due to the coffee break, 75 per cent reported better employee morale, 62 per cent saw an increase in worker productivity, and 32 per cent mentioned a reduction in em-

ployee turnover. Less absenteeism was another consequence after introduction of regular coffee breaks.

Coffee and Muscles

There is no doubt that coffee and caffeine have a stimulating effect on the nervous system of the body. But recent research work by F. Huidobro and E. Amenbar about the effectiveness of caffeine against fatigue has clearly emphasized the effect on the muscles. Caffeine, according to their results, increases the capacity for muscular work in human beings who are rested, and it increases the speed of muscular recovery in fatigued persons.

Frequently in the middle of the afternoon, workers, employees and executives will find themselves growing more irritable, and by 4 or 5 o'clock they feel tired and restless. Their efficiency is definitely impaired. A coffee break in the middle of the afternoon may chase away all such signs of nervous irritation.

Sugar Correction

For a long time it was believed that the caffeine in the afternoon coffee was the reason of this nervous improvement. Recent research work has shown, however, that the coffee break will make disappear a temporary "hypoglycemia" which is at the root of the nervous disturbances.

What is hypoglycemia? Normally there is a certain amount of sugar in the blood—sometimes this amount is too high (hyperglycemia) as in diabetes. But sometimes it is too low—hypoglycemia. When too little sugar circulates in the blood, the brain does not function properly. People then become high-strung and easily fatigued and show signs of nervous irritation.

With the cup of coffee at coffee break time we usually also take some sugar or the sugar may be contained in an accompanying piece of cake or pastry. The sugar quickly comes into the blood stream, the sugar content of the blood is normal again, and the whole nervous system is normal again.

CCJ

Mrs. Safety Director (entering room suddenly): "Well, I never—"
Devilish Daughter: "But mother, you must have!"



with HANDY GOVERNORS

So equipped, your vehicles:

- Require less fuel per ton-mile
- Get better tire mileage
- Need less overall maintenance
- Have fewer accidents

Savings, very worthwhile . . .

Cost of governors, insignificant.



**KING-SEELEY
CORPORATION**
ANN ARBOR, MICHIGAN
WORLD'S LARGEST MANUFACTURERS
OF AUTOMOTIVE GOVERNORS



8308

Fontaine

presents

The heart of every Fontaine Fifth Wheel is the patented NO-SLACK lock . . . an exclusive Fontaine feature!



THE NEW MANUAL CONTROL LO-SLIDE FIFTH WHEEL

the easiest to operate manual slide on the market

Patented new design has all these features!

- ★ Oblong locking pin for positive positioning and long, trouble-free life.
- ★ U-bolts at each end and three additional bolts on each side to attach wheel mount securely to truck frame.
- ★ Standard heights of 8½", 9½", and 10½".
- ★ Standard adjustment of 21" in 3" increments.
- ★ Weighs approximately 570 pounds.
- ★ Fits any truck frame.
- ★ Shipped completely assembled.
- ★ Carries the famous Fontaine Warranty.
- ★ Easy, convenient operation. To slide the wheel, the driver has only to push down the handle and then move to the desired position. Re-locking of the pin is done from the cab by pulling the release cable.

*The NEW Lo-Slide Fifth Wheel is another tested product
from the world's leading producer of fifth wheels!*

Fontaine Truck Equipment Co., Inc.

1232 North 37th Place

Birmingham 1, Alabama

"CONTINENTALS HAVE SERVED US WELL"



... Says Bill Bath,
Machinist in Charge of

Lady's Choice Foods
Truck Fleet, San Leandro, Calif.

"Having successfully used Continental Red Seal engines on L.P.G., in our fleet of 15 trucks, for the past 20 years, I knew Continentals Diesels would perform equally well," writes Mr. Bath. "We now have four Continental RD6572-powered tractors, hauling the legal load of 76,000 lbs. gross every trip, in Mojave Desert heat and at 7,000-foot elevation (Donner Summit). They've averaged 7 miles to the gallon . . . I feel that Continentals have served us well."

RED SEAL ENGINES ARE BACKED BY FACTORY-AUTHORIZED
SERVICE AND GENUINE RED SEAL PARTS, COAST TO COAST



Continental Motors Corporation

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ST. THOMAS, ONTARIO

New Vapor Generator Speeds Tank Cleaning

A NEW SYSTEM has been developed for cleaning tank trucks. It uses trichlorethylene vapor to remove heavy deposits of oils or tar from any part of the tank which can be reached by air.

According to Detrex Chemical Industries, Inc., the vapor leaves a chemically clean and dry surface. The vapor is powerful. The manufacturer claims it can clean a 7000-gal insulated tank coated with up to three inches of asphalt in about 30 minutes.

It's said to be safe on mild steel, stainless steel and aluminum. The vapor is effective on most types of petroleum oils, vegetable oils, tallows and waxes, most paints and resins, plasticizers and varnishes.

Here's how the system works:

Vapor is produced by the Detrex generator. It travels from the generator through solvent-resistant flexible hose to the tank's unloading outlet. Excess vapors go to a condenser on the vapor generator through another flexible hose at the manhole or other opening in the top of the body.

The vapor dissolves the material in the tank. The resulting sludge mixture flows back down the vapor-supply hose. A self-priming pump sends it back through the generator. There it is used to create more cleaning vapors.

With a slight modification, the system can be used to remove many types of aged or unaged paints. It can be also used to unplug drains and inside piping. Solubility of oils, tar and asphalt under the 188-deg hot vapors and up to 20 psi pressure, make this possible.

Other uses for the equipment include testing for leaks in tanks and as a degreaser for cleaning engines and parts in the maintenance shop.

002

SAFETY SADIE: "WHAT'S THE DIFFERENCE BETWEEN A COED AND A WORKING GIRL?"

CATTY CORA: "WE'LL, WHAT A COED LEARNS FROM BOOKS ON BIOLOGY, THE WORKING GIRL HAS TO GET FROM EXPERIENCE."

Save time, save money...
keep the fleet rolling!

"PRESTONE" anti-freeze

BRAND

with its exclusive MAGNETIC FILM

PREVENTS BOTH RUST AND FREEZE-UPS

COMES TO YOU IN AGITATOR DRUMS
SPECIALLY DESIGNED FOR FLEET USE

"PRESTONE" anti-freeze, and only "PRESTONE" brand, has this MAGNETIC FILM to give you rust-and-corrosion protection. With "PRESTONE" ANTI-FREEZE your fleet is protected against expensive engine damage all winter long. Gives your vehicles longer engine life, gives you lower maintenance costs.

Get "Prestone" anti-freeze
in this exclusive, non-returnable,
54 gallon agitator drum!

ORDER FROM YOUR SUPPLIER NOW!



"Prestone", "Eveready" and "Union Carbide" are registered trade-marks of Union Carbide Corporation
NATIONAL CARBON COMPANY • Division of Union Carbide Corporation • 30 East 42nd Street, New York 17, N. Y.



ICC Releases Proposed Changes in Hours of Service and Driver Log Rules

INTERSTATE Commerce Commission early last month released the text of its proposed changes to its Safety Regulations affecting Hours of Service and Driver Log rules. They change Secs. 195.1, 195.2(a)(b)(c)-

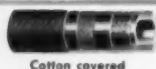
(d)(e), 195.3, 195.4, 195.5, 195.7 and 195.8. Text of the proposed changes are printed here in full for your convenience. Watch for announcement by the Commission for dates for hearings and deadlines for comment.



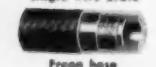
LUCKY MAN
He saves time and money
with **IMPERIAL**
NON-SKIVE pressure hose
and re-usable couplings



OTHER IMPERIAL HOSES AND COUPLINGS



Cotton covered
single wire braid



Freon hose



Rubber covered
single wire braid



Rubber covered
double wire braid



Rubber covered
rayon braid



Male P.T.
Male 37° Flare
Male 45° Flare
Fem. 37° Flare
Fem. 45° Flare
Fem. 30° P.T.T.



Male P.T.
Male 37° Flare
Fem. 37° Flare



Male P.T.
Male 37° Flare
Fem. 37° Flare



15 Types of
Couplings

- He gets all the advantages of a rubber-covered hose—resistance to abrasion, mildew, weather, oil — plus the time-saving assembly of a non-skive hose.
- What's more, he can assemble this hose with couplings he is now using for single wire cotton braid hose — also use the same couplings with Imperial Freon Hose for refrigerated trucks and air conditioned buses.
- With Imperial he can choose from a broad range of hose and coupling types and sizes.
- He uses Imperial's quick method of identification of couplings and hose.

Write for Catalog 3040

IMPERIAL SAWING VISE

provides easy way to saw wire braid hose with minimum wear on hacksaw blade.

Also from Imperial: a complete line of male and female straight, angle and swivel adapter unions.



THE IMPERIAL BRASS MFG. CO.
Dept. CCJ-69
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IMPERIAL



Sec. 195.1—Compliance with and knowledge of regulations required. Every motor carrier and its officers, drivers, agents, employees, and representatives shall comply with the following regulations, and every motor carrier shall require that its officers, drivers, agents, employees, and representatives be conversant with this part.

Sec. 195.2—Definitions. As used in this part, the following words and terms are construed to mean: (a) **On-duty time.** All time from the time a driver begins to work or is required to be in readiness to work until the time he is relieved from work and all responsibility for performing work or holding himself in readiness to perform work. The term "On-duty Time" shall include: (1) All time at a carrier or shipper plant, terminal, facility, or other property, or on any public or private property waiting to be dispatched; (2) All time inspecting equipment as required by Sections 192.7 and 192.8 or otherwise inspecting, servicing, or conditioning any motor vehicle at any time; (3) All driving time, as defined in subparagraph (b) of this Section; (4) All time, other than driving time, in or upon any motor vehicle except time spent resting or sleeping in a sleeper berth as defined in Section 195.2(d); (5) All time loading or unloading a vehicle, supervising or assisting in the loading or unloading, attending a vehicle being loaded or unloaded, remaining in readiness to operate the vehicle, or in giving or receiving receipts for shipments loaded or unloaded; (6) All time spent performing the driver requirements of Sections 192.40 and 192.41 relating to accidents; (7) All time repairing, obtaining assistance, or remaining in attendance upon a disabled vehicle; and (8) Performing any other work whether or not related to transportation as, or in the employ or service of, a common, contract or private motor carrier.

(b) **Driving time.** The terms "drive" and "driving time" shall include all time spent at the driving controls of a motor vehicle.

(c) **7 consecutive days.** The term "7 consecutive days" means the period of 7 consecutive days beginning at 12:01 a.m. on any day.

(d) **Sleeper berth.** The term "sleeper berth" means a berth conforming to the requirements of Section 193.76 of this subchapter.

Sec. 195.3—Maximum driving and on-duty time. (a) Except as provided in paragraph (c) of this Section, no motor carrier shall permit or require any driver used by it to drive nor shall any such driver drive more than 10 hours or be on-duty more than 12 hours following his last 8 consecutive hours off-duty: **Provided, however,** that drivers using sleeper berth equipment may cumulate the aforementioned total of at least 8 hours off-duty in two periods, of at least 3 hours each, resting in a sleeper berth, as defined in Section 195.2(d).

(b) No motor carrier shall permit or require any driver used by it to be on-duty, nor shall any such driver be on-duty more than 60 hours in any 7 consecutive days, as defined in Section 195.2(c), regardless of the number of motor carriers using the driver's services.

(c) The provisions of subparagraph (a) of this Section shall not apply with respect to drivers used wholly in driving motor vehicles having not more than 2 axles and whose gross weight, as defined in Section 190.10, does not exceed 10,000 pounds, unless such vehicle is used to transport passengers of explosives or other dangerous articles of such type and in such quantity as to require the vehicle to be specifically marked or placarded under the Explosives and Other Dangerous Articles Regulations, 49 C.F.R. 77.823, or when operated (TURN TO PAGE 189, PLEASE)

Autocar

"World's Finest"



NEW AUTOCAR LIGHTWEIGHTS
open up new profit opportunities
for produce haulers.

"Pulling reefers is a job for Autocar . . . nothing less!"

To haul perishables at a profit you've got to have on time dependability and top payloads. That's why the longest, fastest runs are now being made by new lightweight Autocar tractors.

Take the Autocar A75T diesel for example (the "A" stands for

aluminum—from aluminum frame to the roof of the cab). Operators report chassis weight savings that increase payloads from 2400 lbs. on up per trip.

This custom-engineered Autocar, like all other Autocars, has the power and stamina to do the job

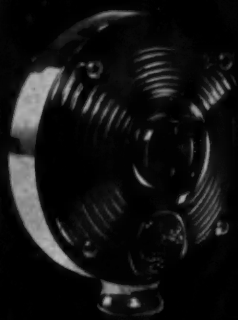
better and on tight schedules. There's no big slow-up on long grades. There's a minimum of maintenance between trips.

You may pay more for an Autocar but you get far more. Why settle for less profit? Why settle for less than an Autocar . . . "world's finest"!

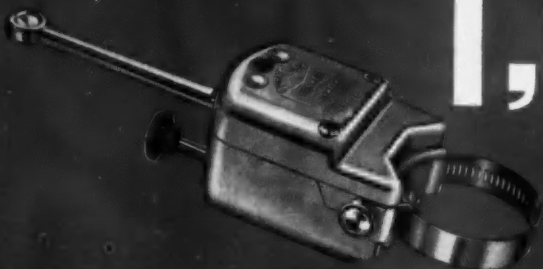
Autocar

"World's Finest"

Division of
The White Motor Company
Exton, Pa.



**3 WAYS
MORE PRO
1,000,000
CYCLE[†]**



†1000 simulated 1,000,000 cycle test and still works perfectly



**HAZARD-
WARNING
YANKEE
GIVES**

Write for free catalog material to:

**YANKEE METAL PRODUCTS CORP.
NORWALK, CONNECTICUT**



NEW YANKEE TURNFLEX SIGNAL SYSTEM... gives your trucks more protection three ways: (1) Lucite lens exceeds 3 times candlepower required... will not warp or fade... full 4 $\frac{3}{8}$ " in diameter. (2) Rust-proof... finished in Yankee blue-white chrome or rock-hard baked black enamel. (3) Rigid mounting... heavy $\frac{1}{2}$ " steel mounting stud cast as part of lamp.

TECTION

Approved for legal use in all states where required.

A signal system is only as good as its lamp-control switch. New Yankee TURNFLEX switch—which controls stop, tail, turn-signal and hazard-warning system—has silver-plated contacts for longer life. Mounts in seconds with its exclusive clamp-around stainless steel band... no loose parts.

SWITCH

Yankee TURNFLEX signal system gives your trucks complete disability protection by simultaneously flashing four lamps on the vehicle—in an instant—without change in rate of flash. The red hazard-warning control lever automatically snaps off when the signal switch is re-activated.

SYSTEM

You get more for your money from Yankee... in protection... in value... in lower installation and maintenance costs... and in performance you can depend on. Call your distributor today and see for yourself how the revolutionary new Yankee TURNFLEX signal system saves you time and money.

YOU MORE

New Proposed Regs

Continued from Page 186

without cargo under conditions which require the vehicle to be so marked or placarded under the cited regulations.

Sec. 195.4—Maximum driving distance. No motor carrier shall permit or require any driver used by it to drive, nor shall any such driver drive more than 375 miles following his last 8 consecutive hours off-duty: **Provided**, however, that drivers using sleeping berth equipment may cumulate the aforementioned total of at least 8 hours off-duty in two periods of at least 3 hours each, resting in a sleeper berth, as defined in Section 195.2(d).

Sec. 195.7—Travel time. When a driver at the direction of the motor carrier is traveling, but not driving or assuming any other responsibility to the carrier, such time shall be counted as on-duty time unless the driver is afforded at least 8 consecutive hours off-duty when arriving at destination, in which case he shall be considered off-duty for the entire period.

Sec. 195.8—Driver's daily log. (a) Except as provided in paragraph (i) of this Section, every motor carrier shall require that a driver's daily log, Form BMC-59 set forth below, (Not shown. No changes have been made in the form itself—Ed.) shall be made in duplicate by every driver used by him or it and every driver who operates a motor vehicle shall make such a log. Failure to make logs, failure to make required entries therein, falsification of entries, or failure to preserve logs shall make both the driver and the carrier liable to prosecution. Drivers' logs shall be prepared and retained in accordance with the provisions of subparagraphs (b) through (i) of this Section.

(b) Entries to be current. Drivers shall keep the log current to the time of the last change of duty status.

(c) Entries made by driver only. Except that the name and principal place of business address of the carrier may be printed, all entries shall be made by the driver in his own handwriting.

(d) Date. Enter month, day, and year for each calendar day on or off duty.

(e) Total mileage. Total mileage entered shall be that mileage traveled while driving, on-duty but not driving, and resting in a sleeper berth, as defined in Section 195.2(d), during the day covered by the log. Mileage while driving shall be shown separately.

(f) Vehicle identification. The carrier's vehicle number or numbers or the State and license number or numbers of each vehicle or unit of a combination operated during the calendar day shall be entered.

(g) Name of carrier. The name or names of the carrier or carriers shall be that or those for which duty is performed. When work is performed for more than one carrier on the same calendar day, the beginning and finishing time, showing A.M. or P.M., worked for each carrier shall be shown after each carrier name. Drivers of leased vehicles shall show the name of the carrier performing the transportation.

(h) Driver's signature. The driver shall certify to the correctness of the log by signing his first name and last name in full and his middle name or middle initial, if any. Below the driver's signature he shall list the initials and last name of each co-driver.

(i) Home terminal. The driver's home terminal address shown shall be that at which he normally reports for duty.

(j) Time base to be used. The log shall (TURN TO NEXT PAGE, PLEASE)

New Proposed Regs

Continued from Page 189

be prepared, maintained, and submitted, using the time standard in effect at the driver's home terminal, for a 24 hour calendar day beginning at midnight: **Provided, however,** that if written notification is given by a carrier to the District Director of the Bureau of Motor Carriers for the district in which the carrier's principal office is located, drivers of any named terminal or terminals of the carrier may prepare logs for a 24 hour period beginning at noon of one day and ending at

noon of the next succeeding day.

(k) **Line 1, Off-duty.** Except for time spent resting in a sleeper berth, a continuous line shall be drawn between the appropriate time markers to record the period or periods of time when the driver is not on-duty, not required to be in readiness to work, or is not under any responsibility for performing work.

(l) **Line 2, Sleeper berth.** A continuous line shall be drawn between the appropriate time markers to record the period or periods of time off-duty resting in a sleeper berth, as defined in Section 195.2(d).

(m) **Line 3, Driving.** A continuous line shall be drawn between the appropriate time markers to record the period or periods of time on-duty driving a motor vehicle, as defined in Section 195.2(b).

(n) **Line 4, On-duty not driving.** A continuous line shall be drawn between the appropriate time markers to record the period or periods of time on-duty not driving specified in Section 195.2(a) (1), (2), (4), (5), (6), (7), (8), or any other time on-duty but not driving as defined in Sections 195.2(a) and 195.7.

(o) **Remarks.** The appropriate time marker and the name of the city, town, or village, with State abbreviation, or place at or near which each change of duty occurs, shall be recorded, such as the place of reporting for work, starting to drive, on-duty not driving, and where released from work. Explain the reason resulting in hours exceeding those permitted by Section 195.3. Show the transportation performed each day by entering a shipping document number or numbers, or name of shipper and commodity.

(p) **Total hours.** The total hours in each duty status: Off-duty other than in a sleeper berth; off-duty in a sleeper berth; driving; and on-duty not driving shall be entered, the total of which entries shall equal 24 hours.

(q) **Origin and destination.** The name of the place where a trip begins and the final destination or furthest turn-around point shall be shown at the bottom of the log. If the trip requires more than one calendar day, the log for each day shall show the origin and final destination. If a driver departs from and returns to the same place on any day, the destination shall be indicated by entering the furthest point reached followed by the words "and return".

(r) **Filing driver's log.** The driver shall forward each day the original log to his home terminal. When the services of a driver are used by more than one carrier during any calendar day, the driver shall furnish each such carrier a copy of the log containing full and complete entries including: The entry of all duty time for the entire day; the name of each such carrier served by the driver that day; and the beginning and finishing time, showing A.M. or P.M., worked for each carrier. Motor carriers when using a driver for the first time or intermittently shall require such drivers to furnish true and accurate copies of logs covering the immediately preceding six days.

(s) **Preservation of driver's log.** Daily logs for each calendar month may be retained at the driver's home terminal until the tenth day of the succeeding calendar month and shall then be forwarded to the carrier's principal place of business where they shall be retained for 12 months from date of receipt. The driver shall retain a copy of each daily log for 30 days and all logs for the preceding 30 days which shall be in his possession while on-duty.

(t) **Driver's log, when not required.** The requirements of this Section shall not apply: (1) to any regularly employed driver who drives wholly within a radius of fifty miles of the garage or terminal at which he reports for work; provided, that the motor carrier employing such driver maintains and retains for a period of one year accurate and true records showing the total number of hours the driver is on-duty per day and the time at which the driver reports for and is released from duty each day; or (2) to drivers of motor vehicles having not more than 2 axles and whose gross weight, as defined in Section 190.10, does not exceed 10,000 pounds, unless such vehicle is used to transport passengers or explosives or other dangerous articles of such type and in such quantity as to require the vehicle to be specifically marked or placarded under the Explosives and Other Dangerous Articles Regulations, 49 C.F.R. 77.823, or when operated without cargo under conditions which require the vehicle to be so marked or placarded under the cited regulations.

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House Moving—5th Wheel lifts house up and helps to roll on new foundation



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Unit complete with P.T.O., Pump, Shaft-Valves. With special Heavy Duty 5th Wheel.

Load is not carried on cylinders but rolls in track cuts line pressure and ring replacements
**OUTLIVES ANY OTHER
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**MORE JOBS HANDLED
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All Railroad Piggy Back Loading
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Fishy Back operations could not manipulate economically without this help.



Lift Boom Mounted on 5th Wheel can Boom or Lift any ordinary Tractor and tow in

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Fruehauf uses Stainless Steel to build stronger, lighter trailers

This 40-foot trailer is one of the latest models designed and built by the Fruehauf Company. It's the strongest, lightest trailer in its class because it was built with Stainless Steel. The Stainless has a yield point of 120,000 psi, almost four times greater than competitive materials. This exceptional strength permitted Fruehauf engineers to design thinner, *lighter* walls, roof and braces. And because they are steel, they are tough and rigid.

This Stainless Steel trailer is almost damage-proof. In a similar model, a load of lamp black caught fire and burned for five hours. The wheels, bearings, brake linings and drums were completely destroyed. They were replaced and the trailer body is still in service.

The exceptional corrosion resistance of Stainless Steel practically eliminates maintenance. This trailer will never have to be painted or refinished and it will still look clean and new after many thousands of miles.

If you buy new trailers, think about this: Did you ever hear of a Stainless Steel trailer that wore out?

USS is a registered trademark



United States Steel Corporation—Pittsburgh
American Steel & Wire—Cleveland
National Tube—Pittsburgh
Columbia-Geneva Steel—San Francisco
Tennessee Coal & Iron—Fairfield, Alabama
United States Steel Supply—Steel Service Centers
United States Steel Export Company

United States Steel





**"This is the greatest performing
truck tire we have
ever sold!"**

L. A. McQUEEN,
Vice President Sales

**THE GENERAL TIRE
& RUBBER CO.**

GENERAL Deep Cross Lug

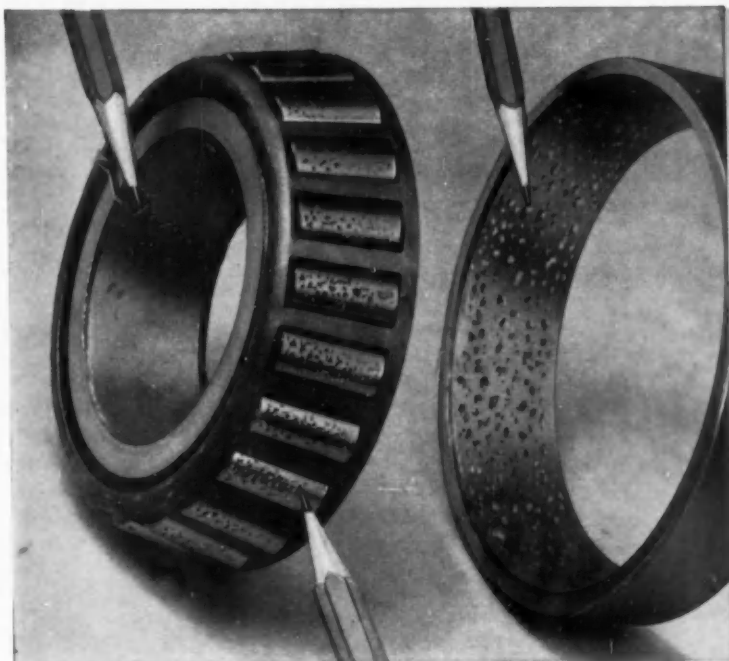
No other long-haul truck tire can compare with the new General D. C. L. for strength, safety and astounding mileage. Featuring a 60% deeper tread on an exclusive Nygen Cord body, The General D. C. L. provides peak protection against blow-outs, bruises and breaks . . . rolls up amazing low cost-per-mile records. For proof positive, ask for a demonstration. Better yet, check with other fleet owners who are already profiting from the General D. C. L.

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*engineered to deliver loads of
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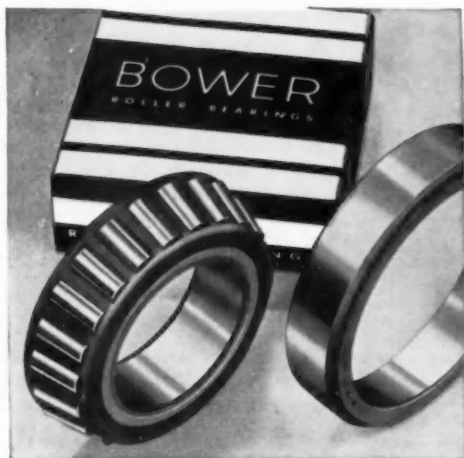
Better products, faster, from your Bower bearing jobber:



Spher-O-Honed tapered roller wheel bearing takes radial and thrust loads equally well . . . has a long, trouble-free life.



Check the bearings for these signs of wear whenever a wheel is pulled



Dirt, water, improper adjustment can ruin bearings fast!

Inspect them often . . . replace with Bower when necessary

Worn wheel bearings can be a nuisance . . . or a hazard! They can lead to equipment breakdowns and wasted time, or cause a serious accident. So it's a good shop practice to clean and check wheel bearings at every opportunity. Most often, four things ruin bearings:

1. Abrasive dirt wears roller and races, makes them dull and rough;
2. Water in lubricant will corrode and pit the rollers and races;
3. Improper adjustment causes flaking on small ends of rollers if too loose, blue discoloration from heat if too tight;
4. Improper mounting can crack a cup or cone, pit its surface.

When these or other danger signals appear, the bearing should be replaced *before* it makes trouble. Your Bower jobber gives fast delivery on a complete line of tapered and straight roller bearings!

BOWER ROLLER BEARINGS

FEDERAL-MOGUL SERVICE

DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC. • DETROIT 13, MICHIGAN



Containers

Continued from page 132

- Research into reduced packing for containerized freight.
- A special rush service based on "exclusive use of container" basis.
- Integration of containers into the customer's warehouse or production line.

In Vancouver, British Columbia, the White Pass & Yukon Route, a transportation company serving Alaska and the Yukon territory says its 8 x 8 x 8 ft containers speed shipping schedules 50 per cent. Its containers move by ocean-going ships, by rail and by trailer.

One interesting feature of this operation is that the boxes are color-coded for (1) explosives, (2) dry cargo or (3) perishables requiring heat or refrigeration.

There's no need for fork-lift operators to check waybills to know which get special handling or service.

Containers are routine when it comes to serving Alaska (see Jan. issue). Now, they're going to welcome the 50th state, Hawaii. Matson Navigation Co. has 350 on order, will use them between San Francisco, Los Angeles and Honolulu. Units measure 24 x 8 x 8½ ft, weigh 3800 lb empty, can carry up to 46,000 lb payload.



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TRUCKS

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LP-Gas offers amazing economies and improved engine performance when properly vaporized, carburetted and thoroughly mixed with air in the correct ratios for every load and speed — idling, acceleration and wide open throttle. Ensign engineers with their engine dynamometer laboratory, one of the finest in the nation, have consistently through nearly half a century improved carburetor performance in gasoline, natural gas and LP-Gas engines. Whether you are an Original Equipment Manufacturer, a truck or LP-Gas dealer, you can count on Ensign LP-Gas carburetion for the finest, most consistently dependable performance known in the industry today. **INSIST ON ENSIGN — ACCEPT NOTHING LESS!**



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Airlines too are

interested in containers. American Airlines uses what it calls "Bunyan" boxes. They're built by Aero-bilt Bodies, Inc., a subsidiary of Grumman Aircraft Engineering Corp. The aluminum boxes measure 84 x 42 x 62 in., weigh 203 lb. They move from plane to dock by fork lift, have their own casters for moving along the dock. They roll right into a truck body for direct delivery to consignee.

When it comes to bulk sugar, says Tote System, a Beatrice, Neb., container maker, it is possible to save 35¢ a 100 lb using containers. As compared with bag handling, saving comes in unloading, warehousing, discharging, clean-up, sugar loss reduction, discount through buying in bulk.

One problem that held up container development before 1945 was speed of transfer. Crane handling can be costly and inflexible. "King-size" fork lift trucks are doing the job for many at present. One drawback they have is lack of availability at out-of-the-way points. So the search goes on for a chassis-mounted unloading system.

One of the newest is

in use by Motor Cargo, Akron, Ohio. Developed by Ohio Body Co., it uses a 220-volt electric motor on the chassis. With it, 17 ft units slide from the trailer chassis onto the straight truck chassis at any level spot where electric power is available.

Motor Cargo reports use of two 17-ft containers and a 35-ft chassis for over-the-road service has cut terminal labor costs by \$1.20 per 1000 lb at Milwaukee, Wis., \$1.90 per 1000 lb at Cleveland, Ohio.

(TURN TO PAGE 196, PLEASE)

"Impact breaks were a costly problem for us until..."



we began using nylon cord tires"

reports Mort Watkins, Tire Maintenance Engineer, Boutell Driveaway Company, Flint, Michigan



Mr. Verlin Miller, Maintenance Manager, shows Mr. Watkins one of the dozens of safety awards won by Boutell Driveaway. Because nylon protects against the major causes of blowouts, driving on nylon is safer.

"With an operation as big as ours, tire repairs and road delays can be pretty costly. Since we started using nylon cord tires 24 months ago, we've had absolutely no problem with impact breaks. Result? Road delays and repair costs cut in half.

"Our vans carry an average of four cars—between 19,000 and 20,000 pounds—to all parts of the country. Four hundred of them travel at top speeds in all kinds of weather over every conceivable road surface. We need a tire that can shrug off any amount of road shock—the toughest, most dependable tire on the market—and that's a nylon cord tire."

PROVE TO YOURSELF that the advantages of nylon cord tires add up to big savings under any road and load conditions. Ask your dealer about nylon cords today. Nylon cord tires are available from all tire makers.

DuPont nylon for tire cord



BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

THE SAFEST, STRONGEST TIRES ARE MADE WITH

NYLON

Containers . . .

Continued from Page 194

Another approach to truck-mounted gear comes from Moore-Handley Hardware Co., Birmingham, Mich. It developed the system for its own use, now sells it to other fleets. One of its latest applications is in ice cream delivery at Detroit Creamery, a subsid-

iary of National Dairies. Here's how they use it . . .

Containers are 20-ft Brown Trailer body shells, are used in a truck-plus-full-trailer operation. In the chassis is a hydraulic lift operated by a power-take-off from the transmission. High pressure lines take the "push" back to the trailer.

Built into the bodies—front and rear on both sides—are adjustable legs. After the body is lifted, the driver drops the legs down, pins them into extended position, frees

the body from the lift, lowers the lift and drives out from under the body.

Reefer system, by

Kold-Hold Division, Tranter Mfg. Co., is a plug-in type. Containers start the day at about 10 to 15 deg below zero, are insulated so as to be able to keep the ice cream hard without being plugged in for an 8-hour span. However, in many cases, plug-in arrangements have been made at each place a box is dropped.

In addition to the flexibility of the containers themselves, the big advantage of the system is the elimination of several small ice cream plants. Unofficially, COMMERCIAL CAR JOURNAL is told that the size of the savings in this area could lead National Dairies to extend the system to all its operations.

Another development

has been use of a giant-size straddle carrier. This rolls over the top of a container-loaded trailer like its smaller brothers roll over a stack of lumber. Seatrain Lines is using it in its "Seamobile" service.

Normally, Seatrain hauls loaded freight cars in coastwise service in especially-equipped ships. They were built for maximum load with 40-ft freight cars. With a trend to 50-ft boxcars, Seatrain fills in the waste space with containers.

Specialized containers cover a wide range of applications. They can be as simple as a box container modified to handle bulk commodities by adding a top loading hatch and bottom discharge gate. These can be gravity unloaded, or equipped with discharge screw or air blower. At the other extreme, there's no limit to what can be designed.

It would be impossible to describe all the known varieties in this round-up, but in conclusion, here are four that show the wide open space for imagination in this field. . . .

For less-than-trailer-load

freight, there's a collapsible cage. It was designed by A. T. Kearney & Co., Chicago, and first described late in April at ATA's Terminal (TURN TO PAGE 200, PLEASE)

LET AMERICA'S MOST VERSATILE CRANE

Solve

YOUR TOUGHEST LIFTING PROBLEMS

STAR Hydro-Lift CRANE

3 MODELS • HALF-TON, ONE-TON, TWO-TON CAPACITIES



- ★ Rugged, unbendable, box-type construction
- ★ Hydraulic lines are fully protected
- ★ Telescoping extension boom
- ★ Built-in overload protection for utmost safety
- ★ Dependable, trouble-free service





Converts to Truck-Mounted Crane in Minutes

BOOM FOLDS UP TO TAKE LEAST POSSIBLE SPACE ON TRUCK DECK

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STAR MACHINE & TOOL COMPANY Minneapolis 14, Minn.

Here are other **STAR** Performers that Build Greater **SHOP PROFITS**



"Little Oscar" Economy Portable and Truck-Mounted Cranes



Portable Winch-Type Cranes




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**YOUR RIGS ARE
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Ask your jobber about WIX-PAX Service—and how it can save you money. WIX-PAX features top quality WIX Oil and Air Filter Cartridges and only top quality! WIX-PAX also brings you FREE—the WIX Fleet Manual and maintenance record. AND—the WIX FREE Fleet Survey that identifies every filter on each vehicle and the right cartridge for each filter!

Fleets with consistent winning records back their vehicles with WIX Prescription Filtration. Or, you can turn that thought around and say, "WIX Prescription Filtration can help put your fleet in the winning column with WIX-PAX service." Either way you say it—you're the winner.

WIX Oil Filter and Air Filter Cartridges feature top quality and premium performance—keep engine insides C-L-E-A-N...free from abrasive dust, dirt, grit or sludge. They save *wear*! They save *repairs*! They save **DOWN TIME**! These triple savings mean more pay load—less maintenance...more income—less outgo...more value—less depreciation. Yes, WIX is for you.

Write—get all the facts about WIX Prescription Filtration and the money-saving features for you!



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GASTONIA, N. C.

In Canada: Wix Corporation Ltd., Toronto

BIG NEWS ***FOR over-the-road*** ***TRUCKERS!***



NEW PUSHER PUMP **solves engine fueling problems—** **lengthens engine life—cuts upkeep costs**

Here are the facts about Tokheim's new In-Tank Pump that have already led two of the country's foremost truck manufacturers to make it a standard specification. Suspended in the tank and designed to push fuel to the carburetor, it delivers dependable, maintenance-free service for 100,000 miles and more—three times the life of conventional suction pumps. Gasoline is delivered in a steady, uninterrupted flow, eliminating engine starvation even when the fuel supply is at an extremely low level. Because

it is designed specifically for today's highly volatile gasolines, the Tokheim pump stops vapor-lock, permits open throttle driving mile after mile, without danger of valve burn-out. It assures cold starts, provides engine operation you can depend on in the widest temperature extremes. Equally important, this pump is priced so that you can convert your entire fleet economically. A trial installation will convince you. Today, see your truck equipment distributor, or write the factory for literature.

General Products Division

TOKHEIM CORPORATION

Fort Wayne, Indiana



IN-TANK ELECTRIC ***FUEL PUMP***

NOW used by 2 leading truck manufacturers.



All sleeve assemblies are not alike

● With Allied, you get a cylinder sleeve assembly that sets a new high standard in quality—quality that pays off in fast break-in and long, trouble-free service. Here's why:

Allied quality is the result of excellence in *each* component—and particularly in Allied's centrifugally cast cylinder sleeve.

The high hardness of this sleeve gives it exceptional resistance to abrasive wear, while its uniform flake-type graphitic structure effectively reduces possibility of scuffing.

In addition, all Allied assemblies contain chrome ring sets of the latest design to help protect each installation against initial scuffing and to insure long life.

All pistons and pins, of course, exactly meet original equipment specifications for design and materials.

In short, you can be sure that Allied Cylinder Sleeve Assemblies are ideally suited to your requirements . . . and your N·A·P·A Jobber is prepared to give you the fast, efficient service it takes to reduce down time to a minimum.

**ALLIED AUTOMOTIVE PARTS COMPANY
INDIANAPOLIS 7, INDIANA**



Allied

ENGINE & CHASSIS PARTS

"the complete coverage line"

you can depend on...

100% "DRY-ICE" PROTECTION

As the sole refrigerant, rely on Pureco "DRY-ICE" for safe, dependable, dry-cold. Eliminates maintenance, light-weight—more pay load. Several types of "DRY-ICE" bunkers available.

AUXILIARY REFRIGERATION

Use "DRY-ICE" to supplement mechanical units and eliminate "hot spots".

EMERGENCY REFRIGERATION

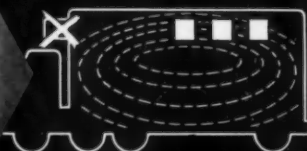
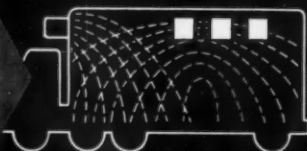
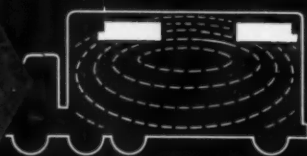
Use "DRY-ICE" when mechanical parts break down. No spoilage. It handles easily and is quickly available through the Pureco network of depots.

You can count on Pureco "DRY-ICE"... and Pureco service. Pureco Technical Sales Service will be glad to study your particular refrigeration problems and help you solve them.

Remember—over 100 Pureco depots from coast to coast are your assurance of dependable deliveries of "DRY-ICE". Pureco distribution points are all listed in a handy booklet—call or write today for your copy.

ANY WAY YOU USE IT

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TRADE MARK



Pure Carbonic Company

A division of Air Reduction Company, Incorporated

Nationwide "DRY-ICE" service-distributing stations in principal cities

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AT THE FRONTIERS OF PROGRESS YOU'LL FIND AN AIR REDUCTION PRODUCT

Containers...

Continued from Page 196

Operations Council meeting. Basically it's a double-deck push cart, has caster wheels, measures 28 in. wide, 48 in. long and 73 in. high. Advantages are...

- Quick segregation of small LTL shipments by destination.
- Bins roll right into outbound trailers, make it possible to get a higher load with LTL's small packages.
- Pick-up driver can sort as he loads, unloads by pushing cart onto dock.
- Less loss and damage on small shipments.

One disadvantage is cube loss in trailers, but this can be offset by advantages listed above.

Collapsible rubber

containers, "Sealdtanks," made by U. S. Rubber Co., are being used by several truck fleets—private and for-hire. They range in size from 70-cu ft capacity (80 in. long, 46 in. in diameter when filled) to 4,000-gal capacity (30 ft long, 56 in. in diameter). They have been used for such diverse commodities as corrosive chemicals, fish oil, glue, diesel fuel, liquid chocolate, liquid sugar, vinegar and molasses.

For tetraethyl lead,

Ethyl Corp. and American Car and Foundry have developed a U-shaped container. It's switched from trailer chassis to steamship. Advantage is its 2200-gal capacity.

Before its development, waterborne shipments of "Ethyl" were limited to 55-gal container drums. Now, the equivalent of 40 of these drums can be loaded in 1½ hours

(TURN TO PAGE 202, PLEASE)

**PROTECT Your Hands, Arms From
DIRT, GREASE, PAINT, CHEMICALS**

PROTEX-A-HAND

FOAM CREAM with LANOLIN
The Invisible Protective
glove that goes on
BEFORE WORK...
Washes off INSTANTLY
AFTER WORK... taking
ALL DIRT with it. Leaves
hands and face clean!
over 100 applications \$1.00

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*Handle any size vehicle
from a service truck to a
giant transport...*

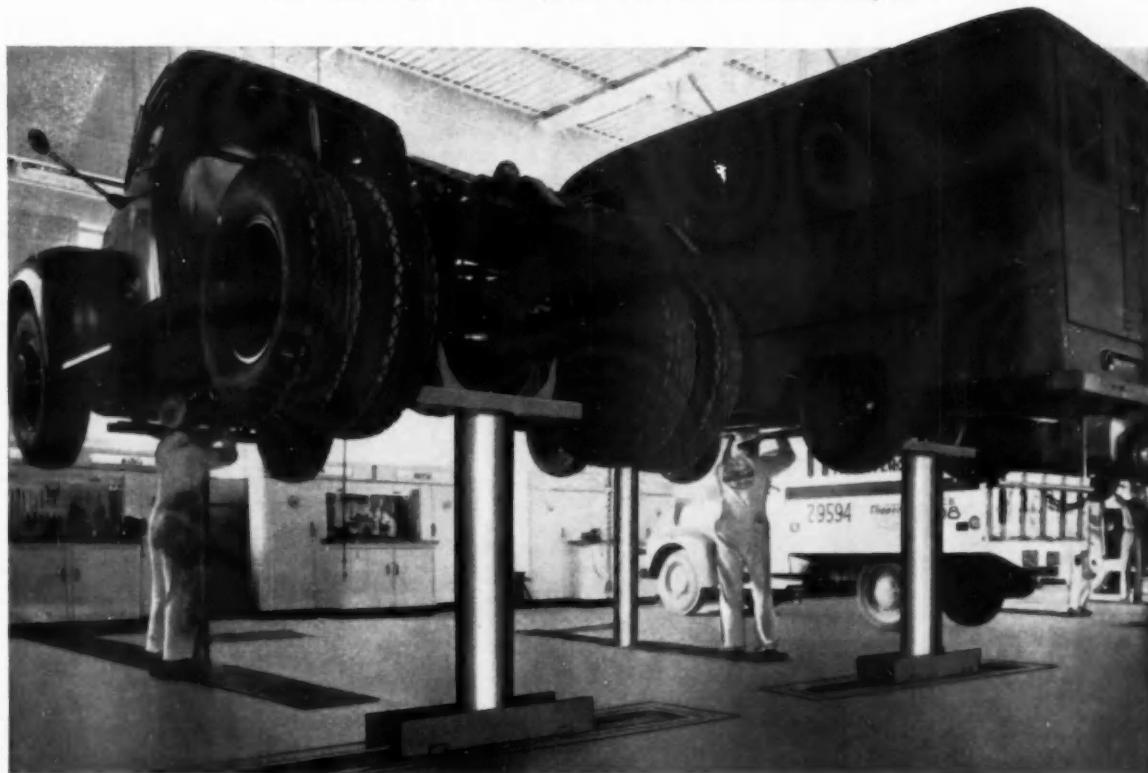
WEAVER HEAVY DUTY **TWIN POST LIFT**

You will like the wide variety of shop work that can be done quicker, easier and better with Weaver Twin Post Lifts. It's possible to handle every vehicle from a small service truck up to a large truck or bus. The weight of the vehicle is always directly over the pistons, unlike ordinary lifts which are subject to off-center loading.

Records prove that Weaver Twin Post Lifts increase shop output from 25% to 100%. These lifts quickly raise vehicles to convenient working height, and afford the mechanic free unobstructed access to every underchassis point. There are no rails in the way.

Available either as Model EC-105 air-oil operated or Model EC-106 electric-oil operated. Model EC-106 (shown) has 36,000 lbs. capacity, and is regularly furnished with 102" of wheelbase adjustment. Other wheelbase adjustment ranges available from a minimum of 36" to any desired maximum.

For details, see your Weaver jobber or write us for Bulletin CCJ457.



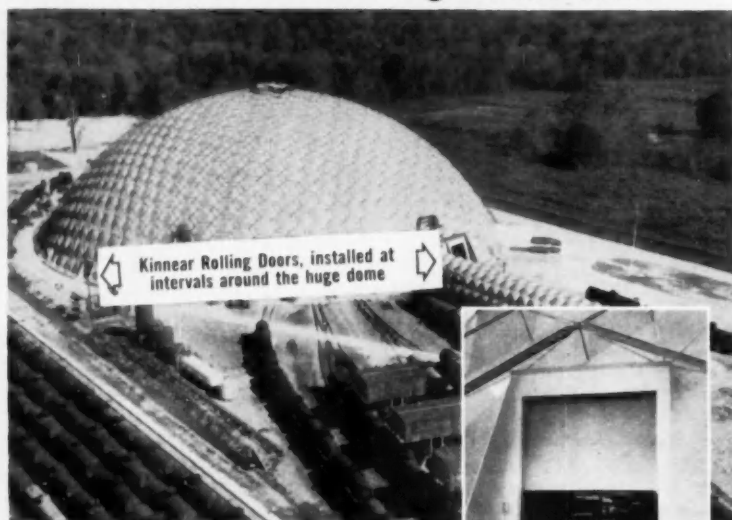
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Complete line includes: Twin Post Lifts . . Triple Post Lifts . . Single Post Roll-on, Free-Wheel and Frame Type Lifts . . Unit Lifts . . Bumper Jacks . . Car Washers . . Wheel Alignment Equipment . . Headlight Testers . . Brake Testers . . Wheel Balancing Equipment . . Jacks . . Wheel Dollies.

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Kinnear Rolling Doors, installed at intervals around the huge dome

— as in all types of buildings

Door efficiency calls for Kinnear Rolling Doors

With no internal supports of any kind, yet big enough to enclose a football field, this giant geodesic dome houses a railroad car repair shop of the Union Tank Car Co., in Baton Rouge, La.

And here, as in all types of buildings, Kinnear Rolling Doors provide up-to-the-minute door efficiency.

They open straight upward and clear the entire doorway, coiling compactly above the opening. Surrounding floor, wall and overhead space, inside and outside the build-

ing is always fully usable whether the doors are opened, closed, or in action. This promotes full use of hoist, crane, conveyor, and lift-truck equipment.

Their continuous all-metal curtain gives extra protection against intruders, vandals, troublemakers, wind, weather, and fire.

Every Kinnear Door is Registered. Full details of all parts are kept permanently in Kinnear's fire-proof vaults. Parts are always replaceable. Your Kinnear doors will never be "orphans".

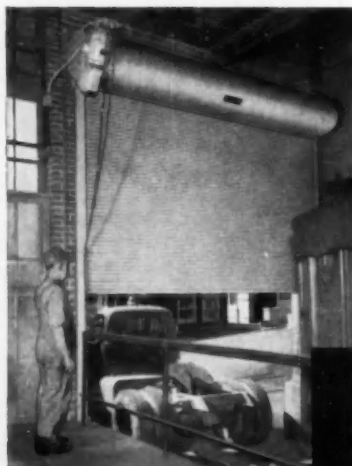
For maximum durability Kinnear's special hot-dip galvanizing coats the entire curtain with a full 1.25 oz. of pure zinc per square foot of metal (ASTM standards).

Kinnear Rolling Doors are built any size, for old or new buildings, with motor, manual or mechanical operation. Write for information.

The KINNEAR Mfg. Co.

FACTORIES:
2100-20 Fields Avenue, Columbus 16, Ohio
1742 Yosemite Ave., San Francisco 24, Calif.
Offices and Agents in All Principal Cities

KINNEAR
ROLLING DOORS
Saving Ways in Doorways



Containers . . .

Continued from Page 200

as compared to the former drum handling time of six hours for the 40.

Fiber glass-reinforced plastic has also gotten into the container act. Cardox Corp. and Odyssey Trailer Co. developed a trailer chassis plus containers for dry ice hauling and storage.

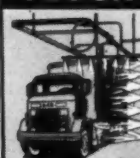
In addition to the flexibility of container use, Cardox reports a 3840-lb increase in payload plus 704 lb more of dry ice per load that with previous handling methods would have "melted."

END

Please Resume Reading Page 136



TRUCK WASHERS



**AUTOMATIC
ALL PURPOSE
SYSTEM
REVOLUTIONIZES
VEHICLE WASHING**

WRITE FOR
INFORMATIVE
FOLDER

Wohlert

INCORPORATED
LANSING 5 MICHIGAN



The skilled hand of the German gunsmith is responsible for this .22 caliber, 6-shot, repeater automatic with self-ejecting clip. Just 4" long, fits easily into pocket or purse. Ideal for sporting events, stage use. (Not available to Calif. residents.) Comes for \$6.95 ppd. from Best Values, Dept. K-430, 403 Market, Newark, New Jersey.

DAIRYMEN
at the
DISA SHOW

...Acclaimed **BOYERTOWN** **ADVANCE DESIGNED** **DAIRY BODIES for '59**

"Better Built" with HI-TENSILE ALLOY STEEL—Assuring
4 to 6 times longer resistance to corrosion,
greater strength, lighter weight, longer life.



STEP IN DELIVERY

Six body models and sizes available with Loadspace lengths from 74" to 216".

Standard and Refrigerated Retail delivery units.

Added Driver Convenience and Safety Features.

Space for Working Cases at front of partition.

Adjustable milk case racks and load stops.

Easily replaceable Body Sections and Parts.

Full square, all usable loadspace—greater payload.

Whether you Buy or Lease, Boyertown Dairy Bodies assure TOP VALUE to the PURCHASER.



New Body Features

ONE-HAND OPERATED Insulated COMPARTMENT DOOR

Spring-loaded assist control. Simple design. No repairs. Free rolling. Self Sealing.

LARGER CAB AREA

Extended Step Wells permit loading up to 9 working cases in Driver's cab.

New Body Features Assure Convenience, Comfort, Safety for the DRIVER-SALESMAN



MERCHANTISER*



Eight body models and sizes available.

Wholesale Refrigerated delivery units.

Refrigeration supplied by means of "Over-the-Road" or "Dock-Side" Operation.

Full Square, all usable payload space from 272 to 862 Cu. Ft.

Easily removed or replaced body sections and parts—All Models.

Easy access doors to engine and components.

Express-quick delivery of all replacement parts.

All Models designed and built for Low Cost Service and Maintenance for the MAINTENANCE MAN.

*Registered Trademark

To ALL TRUCK USERS:

Buy A "Better Built" Truck Body
Buy A BOYERTOWN!

Whether a Dairyman, Contractor, Baker, Florist or Butcher, whether you Lease or Buy, there is a Boyertown truck body to meet your particular needs. Contact your nearest Boyertown Sales Representative located in all principal cities.



Designers and Builders of "Better Built" Bodies Since 1872

Phone: 7-2146

TWX Boyertown 59

NO HUNT FOR "INFLATE AND CHECK" GAGES



FAST • AUTOMATIC

ACCURATE TIRE INFLATION



Longer tire life...Less downtime...Lower labor costs

ECO TIREFLATORS

FOR TIRES UP TO 110 LBS. PRESSURE

Eco Tireflators bring fleet operators — large and small — long-range economies that mean higher fleet profits. One-step inflation cuts downtime and labor costs to a minimum. Rapid automatic Eco tire inflation meets the tightest service schedules. And precision-built Tireflators deliver the exact pressure required for longest tire life and safest driving. Tubeless or tubed, brand new or recapped — any tire lasts longer with Tirelator accurate inflation!



JOHN WOOD COMPANY

BENNETT PUMP DIVISION • MUSKEGON, MICHIGAN

IN CANADA: **JOHN WOOD COMPANY LIMITED**
Toronto • Montreal • Winnipeg • Vancouver



Typical of Rhodes & Jamieson's rigs are 83 Hendrickson-equipped International RD-450 and RF-192 units with 5 and 7 yard mixers.

"HENDRICKSON gives us the versatility we need"

Rhodes & Jamieson, Oakland, California, produces over 5,500 cubic yards of wet mix construction material daily. The company keeps much of its large fleet in operation 18 hours a day and provides weekly preventive maintenance checks.

"Economical operation, to say nothing of customer satisfaction, demands reliable equipment," says Truck Superintendent Floyd Schneck. "In addition, our trucks have to be adaptable to widely varying

conditions — from city streets and highways to muddy construction sites, from fully loaded to empty return runs. And no matter what the conditions, we have to get the job done, *right now!* That's why we're enthusiastic about Hendrickson Tandem Suspensions. Hendricksons eliminate maintenance requirements and downtime, they reduce tire wear and let us cut our parts inventories, and they stop starting and braking chatter."

All Hendrickson Tandem Suspensions are interchangeable between trucks, tractors and trailers—and are also interchangeable between makes of axles. Parts inventories can be reduced! Fleet operators can specify the design best suited for each particular operation.



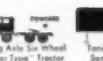
Double Drive Six Wheel Truck



Trailing Axle Six Wheel Truck



Double Drive Six Wheel Tractor



Trailing Axle Six Wheel "Pusher Type" Tractor



Tandem Axle Semi-Trailer



Six or Eight Wheel Full Trailer



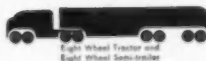
Portable Special Machinery



Crane Carrier

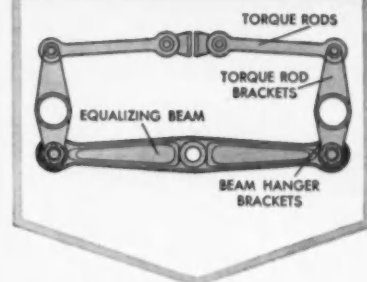


Eight Wheeler

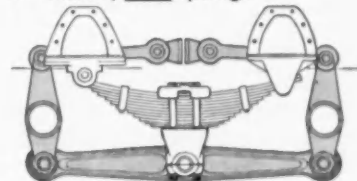


Eight wheel Tractor and Eight wheel Semi-trailer

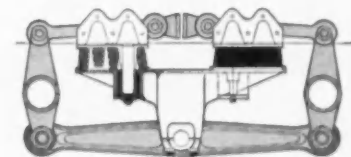
STEEL, RUBBER or AIR SPRINGS in ONE BASIC DESIGN!



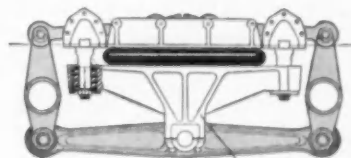
RT SERIES, steel springs



RS SERIES, rubber load cushions



AR SERIES, air springs



Aluminum saddle and air reservoir, standard on "AR" Series.

Now! Heat treated lightweight forged steel or forged aluminum equalizing beams for all three series of Hendrickson Suspensions.



HENDRICKSON MFG. COMPANY
8001 WEST 47th STREET
LYONS (Chicago Suburb), ILLINOIS

Sam Schaffer, manufacturer of truck tanks, demonstrates the smooth surface of USS COR-TEN Steel. There's no "fluting," no scabs, pits or slivers to mar the finish.

Weight savings — 33%

Extra payload — 1000 gallons

in  COR-TEN High Strength
Steel trailers

Does it pay the user to buy truck and trailer tanks built of USS COR-TEN High-Strength Low-Alloy Steel? Here's what Sam Schaffer, President, Weld-It-Company, Los Angeles, says: "The main advantage to the buyer from the use of COR-TEN Steel is the increase in payload he can carry. The COR-TEN Steel tank, itself weighs about 33% less than the old tanks. This permits an increase in payload of 800 to 1000 gallons."

The extra payload means extra profits which quickly pay for the slight increase in the cost of the unit. But the savings don't end there. COR-TEN Steel's exceptional resistance to atmospheric corrosion produces a tank that lasts longer. Many tanks built 10 or 12 years ago are still in service . . . and in excellent condition. Frequently they outlast two or three truck chassis, and are transferred to new trucks.

With COR-TEN Steel there is usually no problem with internal flaking to clog pumps and valves. What's more, paint lasts longer on the outside surface and saves maintenance expense.

Find out how USS High Strength Steel can save money for you. Ask your equipment supplier about our two other High Strength Steels—USS MAN-TEN Steel for high strength with abrasion resistance and economy, and USS TRI-TEN Steel for high strength and toughness.

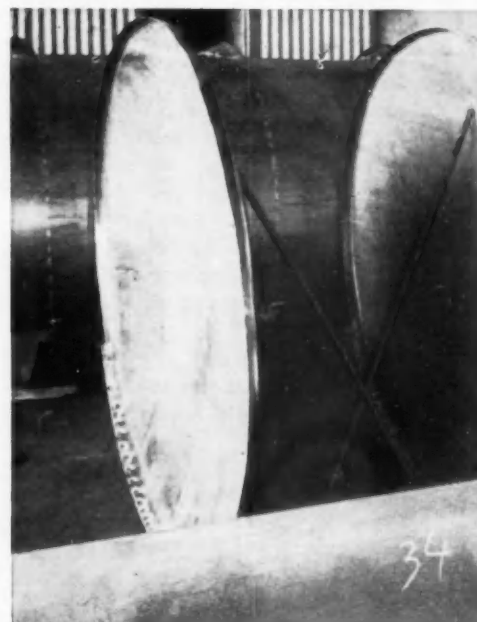
USS, COR-TEN, MAN-TEN, AND TRI-TEN are registered trademarks

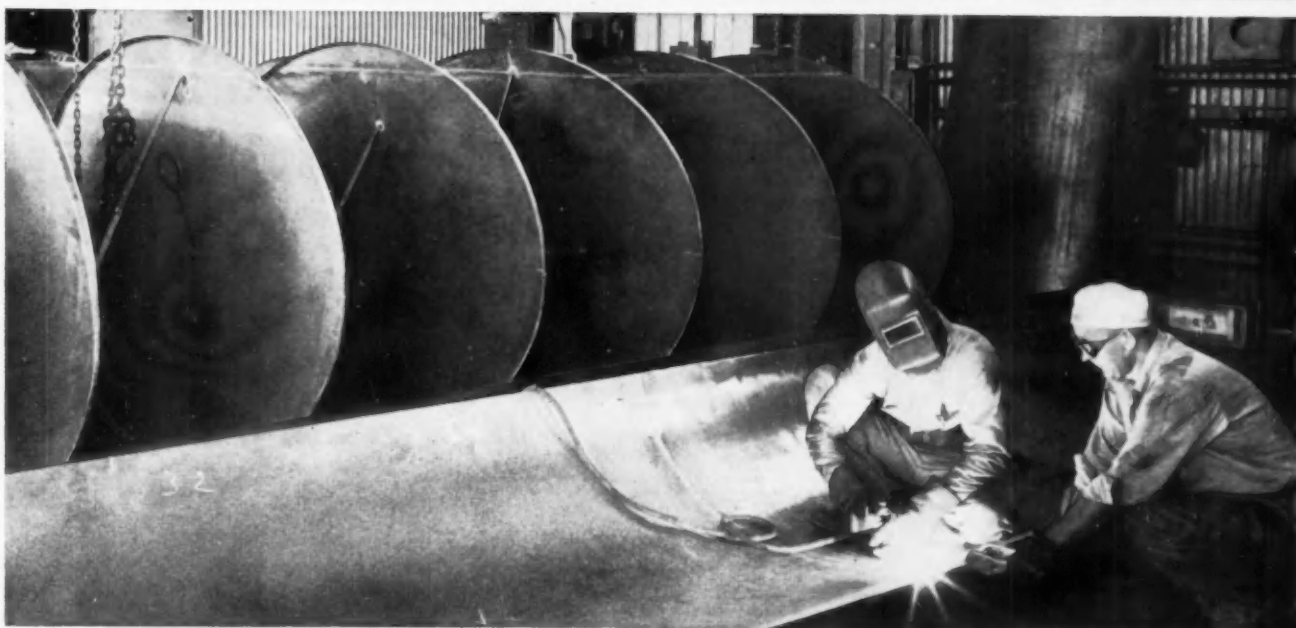
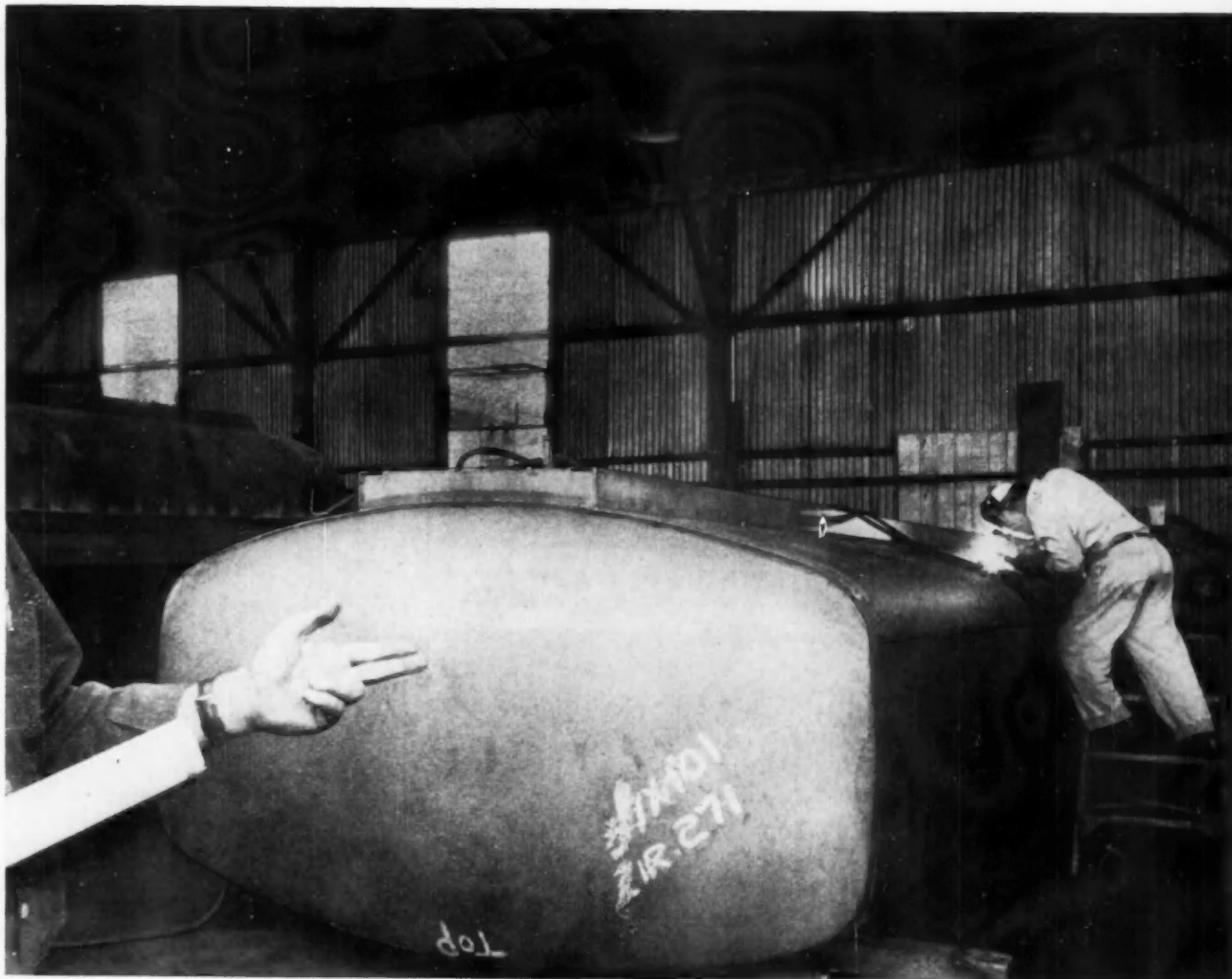
United States Steel Corporation — Pittsburgh
American Steel & Wire — Cleveland
Columbia-Geneva Steel — San Francisco
Tennessee Coal & Iron — Fairfield, Alabama
United States Steel Supply — Steel Service Centers
United States Steel Export Company

United States Steel



COR-TEN Steel's ease of fabrication with no special welding techniques steps up shop efficiency.





...YourOwnRodeo

Continued from Page 138

for extra drivers with 10 months minimum service. Entries came in from 18 regular drivers and seven extras.

Drivers had their choice of equipment. While they could select the same model they usually drove,

they could not use the specific truck used on their route.

Prizes helped

attract entries. In the Major class, the champion won a one-week vacation with \$100 net award. Runners up received \$35, \$20, and \$15 awards. All winners also got trophies. In the Minor class there was a trophy and \$15 for the top man, and a trophy for the runner-up.

Will the contest catch on? Probably. Canada Dry Corp. has already

circulated rodeo material to its other divisions. The American Bottlers of Carbonated Beverages association is passing the rodeo story on to its members.

Says Ulrich: "I would like to encourage another Rodeo to be held this fall or next spring with inter-company competition to determine the Champion Beverage Driver of Eastern Pennsylvania and New Jersey."

END

Please Resume Reading Page 140



NEW Kwik-Way

CYLINDER BORING MACHINE

4 SPEEDS

4 FEEDS

16 COMBINATIONS

MODEL FL
Heavy-duty cylinder boring machine

Provides versatility in speeds and feeds for different size bores, and depth of cut and metal hardness

Kwik-Way's new model FL is specially designed to take heavy cuts and for larger diameter boring. Capacity: 3" to 6 1/2" with standard equipment. Stroke: 18". With spacer plates and a few other inexpensive extras, capacity can be increased to 9".

FEED SELECTOR POSITION	FEED—INCHES/MINUTE			
	SPEED—BORING HEAD RPM			
1	.127	.217	.455	.772
2	.249	.425	.891	1.515
3	.393	.670	1.400	2.380
4	.564	.966	2.000	3.380

Other Kwik-Way Cylinder Boring Machines, Models FX, FR, and FT, cover capacities ranging from 1 1/2" to 5-9/32". Mail coupon for complete information without obligation.

CEDAR RAPIDS ENGINEERING CO.
912—17th St., N.E.
Cedar Rapids, Iowa

Gentlemen:

Please send information on:

☐ Kwik-Way Model FL

☐ Other Kwik-Way Cylinder Boring Machines

Name _____

Address _____

City _____ State _____

PRECISION • SPEED • LONG LIFE

get all three in

Kwik-Way

Engine Reconditioning Equipment

No Horsepower!



One of history's strangest trucks transported wood and produce between Boston and outlying districts for the farmers who lived there. Its owner was a man named Roger Balsom, who put himself into business in 1775 by building a wooden wagon. Since he couldn't build a horse to pull it and wasn't rich enough to buy one, he made the vehicle travel in windy weather by attaching a mast to its body and equipping this with canvas sails. It worked beautifully until snow fell. But business boomed even then because he removed the wheels and substituted a sled. The only time he really missed a horse was in balmy summer weather when the wind wouldn't blow. He and his brother then had to hitch themselves to the conveyance. Even after he could afford a horse, the strange wind-powered truck was a local Boston attraction which eventually succeeded in making Balsom rich enough to donate \$2,500 to Washington's troops.

**THERE'S NO BETTER
BRAKE FLUID
FOR ANY CAR
THAN THE ONE
THAT GOES INTO
ALL NEW GM CARS!**



EXCEEDS NEW S.A.E. SPECIFICATION 70R3

Again, for 1959 as for the past ten years, Delco Super 11 Heavy Duty brake fluid is original equipment on all new General Motors cars! With this ready-made market, it surely pays to stock Delco Super 11 for replacement use.

Your other customers—both passenger and commercial—will want it, too, because it is the brake fluid that's specially designed to give the extra braking protection needed for today's high speeds and heavy traffic conditions.

Improved with HTD, Delco Super 11 exceeds SAE 70R3. Delco Super 11 Extra Heavy Duty brake fluid is readily available everywhere through the United Motors System and General Motors car and truck dealers.

- DELCO SUPER 11 EXTRA HEAVY DUTY** • Is compatible with all rubber and metal parts!
• Is chemically inert and physically stable! • **GIVES MORE SAFE STOPS FOR CUSTOMERS,
MORE SALES FOR YOU!**



Moraine Products

Division of General Motors, Dayton, Ohio



**"LUBRIPLATE
ENDED OUR
TRANSMISSION
TROUBLES"**

says: DAVID TESONE TRUCKING CO.

"After installing larger engines in some of our trucks, we began to experience transmission failures due to faulty lubrication. We tried several types of gear lubricants without success, until we tried LUBRIPLATE APG #140 Gear Lubricant. Then our gear troubles ended. We are also getting outstanding results from LUBRIPLATE 630-2 in chassis and wheel bearings of our 40 heavy duty trucks!"

David Tesone

**REGARDLESS OF THE SIZE AND
TYPE OF YOUR MACHINERY,
LUBRIPLATE GREASE AND
FLUID TYPE LUBRICANTS WILL
IMPROVE ITS OPERATION AND
REDUCE MAINTENANCE COSTS.**

LUBRIPLATE is available in grease and fluid densities for every purpose . . . LUBRIPLATE H. D. S. MOTOR OIL meets today's exacting requirements for gasoline and diesel engines.



For nearest LUBRIPLATE distributor see Classified Telephone Directory. Send for free "LUBRIPLATE DATA BOOK" . . . a valuable treatise on lubrication. Write LUBRIPLATE DIVISION, Fiske Brothers Refining Co., Newark 5, N. J. or Toledo 5, Ohio.



June News Roundup

Continued from Page 114

Toll collectors will increase their inspections of vehicles as they enter the Turnpike at interchanges, and State Police will back up their efforts with inspections along the roadway and at service areas.

Miller, Claim Expert, Dies

WASHINGTON, D. C.—John M. Miller, 45, chief of the Freight Claim Section of the American Trucking Assns. and executive secretary of the ATA National Freight Claim Council, died at 6 A. M., Friday, April 24, 1959, at Suburban Hospital, Bethesda, Md.

Israel Elected Accounting Head

BOSTON, MASS.—Charles R. Israel, treasurer and general manager of Aero Mayflower Transit, Indianapolis, Ind., has been elected president of the National Accounting and Finance Council of American Trucking Assns.

Other officers elected were: Perry L. Harris, Houston, Tex., formerly vice president of T.S.C. Motor Lines,

first vice president; Kurt W. Berger, treasurer and controller of Express Freight Lines, Milwaukee, Wis., second vice president, and P. L. Anderson, treasurer of Associated Truck Lines, Grand Rapids, Mich., third vice president.

Odom Elected Tank Truck Head

WASHINGTON, D. C.—L. A. Odom, Chairman of Associated Petroleum Carriers, Spartanburg, S. C., was elected president of ATA's National Tank Truck Carriers, last month as the association concluded a three-day convention at The Shoreham Hotel.

Elected first vice president was W. E. Johnson, executive vice president of Rogers Cartage, Chicago. William F. Crossett, president of William F. Crossett, Inc., Warren, Pa., was elected eastern vice president; and Merle Imus, vice president, bulk commodities operations, Consolidated Freightways, San Mateo, Cal., was named western vice president. Willard L. Lemmon, president of Lemmon Transport, Marion, Va., was re-elected treasurer; and C. Austin Sutherland, conference managing director, was re-elected secretary.

(TURN TO PAGE 212, PLEASE)

**WANT DAILY FACTS
on each
truck trip?**

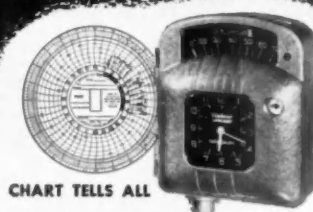


CHART TELLS ALL

WAGNER SANGAMO TACHOGRAPH "supervises"
truck operation for little more than 2¢ per day

When you equip a truck with a Tachograph you are able to get a complete graphic report on all starts, idling, stops, and speeds encountered on the run. The chart (which costs you about 2¢ each) is taken out of the Tachograph at the end of the day. The data recorded provides you with the information you can use to cut unscheduled stops, plan better routes, lower operating and maintenance costs, and help make drivers more safety conscious. For details, mail the coupon.

WS59-2



Wagner Electric Corporation

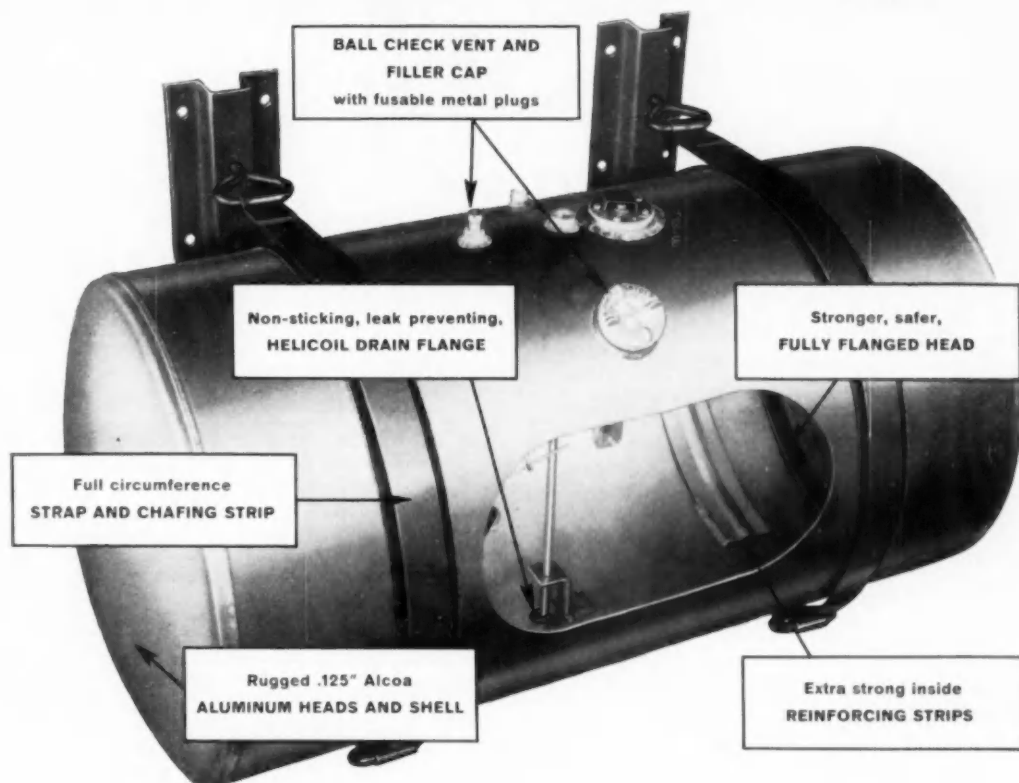
6476 PLYMOUTH AVE. • ST. LOUIS 14, MO.

Please send a copy of Bulletin SU-3

Name _____
Company _____
Address _____
City _____ State _____
We operate _____ Vehicles _____

SNYDER ALUMINUM TANKS

proven in service — cut tank weight 50%



The main reason why the up-to-date trucker picks aluminum tanks is the *increased* payload made possible by savings in weight.

But, that's just the *beginning* with Snyder because Snyder Tanks bring you less weight with no sacrifice in either strength or durability. See for yourself.

Start with the basic material of construction. It's rugged Alcoa aluminum, .125" thick, non-sparking, and resistant to corrosion. No rust, no need to paint it, ever.

Then, look *inside* this Snyder tank. Note how the inside reinforcing strips add extra strength. Next, look at the theftproof baffling that prevents syphoning.

Also Available...

SNYDER CENTER STEP ALUMINUM TANKS
I.C.C. LABELED FOR GASOLINE USE

Select from four models with capacities from 44 to 74 gallons. And remember, with a dual aluminum tank installation, your weight savings are doubled!

Check, too, the helicoil spring in the drain plug. You never have to worry about sticking. And the helicoil does away with soft aluminum threads which could wear and cause leaking. Finally see how the heads are fully flanged with all seams lap welded. No weak points, anywhere.

And outside? You'll find a specially designed ball check vent and fusible metal plugs in the filler cap that provide protection in case of fire. Mounting straps run full circumference, with a bracket specially designed to prevent chafing. Naturally, the label tells you that this tank meets all I.C.C. requirements. In sizes from 37 to 72 gallons.

Write today for your free Snyder Tank Catalog. And, don't settle for just any aluminum tank...

For safety, satisfaction and service, be sure to:

ALWAYS SPECIFY

SNYDER

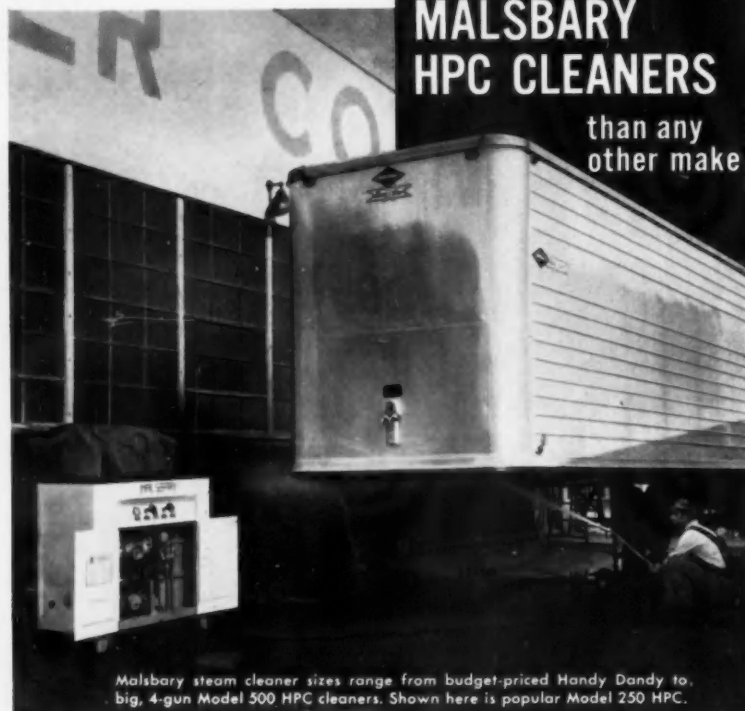
SNYDER TANK CORPORATION

P. O. Box 14, Buffalo 5, N. Y. • Phone TRiangle 7100

CLASS 'A' CARRIERS

BUY MORE MALSBARY HPC CLEANERS

than any
other make



Malsbary steam cleaner sizes range from budget-priced Handy Dandy to, big, 4-gun Model 500 HPC cleaners. Shown here is popular Model 250 HPC.

Wherever the fleet maintenance job is a continuing and really tough operation, there you find Malsbary High Pressure Combination cleaners working. The maintenance director of one of the world's largest fleets sums up the reason thus:

"16 years of experience with Malsbary convinced us it's ideal for our heavy work load, 24-hour, 7-day week schedule."

The choice of Malsbary HPC cleaners by this user and hundreds of others can be your guide to better steam cleaning. Why not use our buy-and-try plan and see for yourself what Malsbary can do for you.

MONEY BACK OFFER We're confident you'll be happy with Malsbary performance in your shop. So you buy a Model 250 (or bigger) HPC and try it for 10 days; if you are not completely satisfied that it does reduce your cleaning costs, return it and our dealer will refund your money. You can't lose! Call him now (see yellow pages of phone book) or write us.

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ASK ABOUT the Malsbary green steam cleaner hose . . . it's durable, oil and abrasion resistant.



845 - 92nd Ave., Oakland 3, Calif.

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June News Roundup

Continued from Page 210

Journalism Contest Announced

WASHINGTON, D. C. — The appointment of six judges and a deadline of August 7 for judging this year's entries in the Ted V. Rodgers Journalism Awards have been announced by Walter F. Carey, Chairman The ATA Foundation, Inc. The Rodgers awards, for outstanding articles and editorials on highway improvement and use, grant \$9,000 annually to professional writers on magazines, daily and weekly newspapers, and to recognized schools of journalism. The awards, named to honor Ted V. Rodgers, Sr., first president of American Trucking Associations, are sponsored by Trailmobile Inc., as a member of The ATA Foundation Inc.



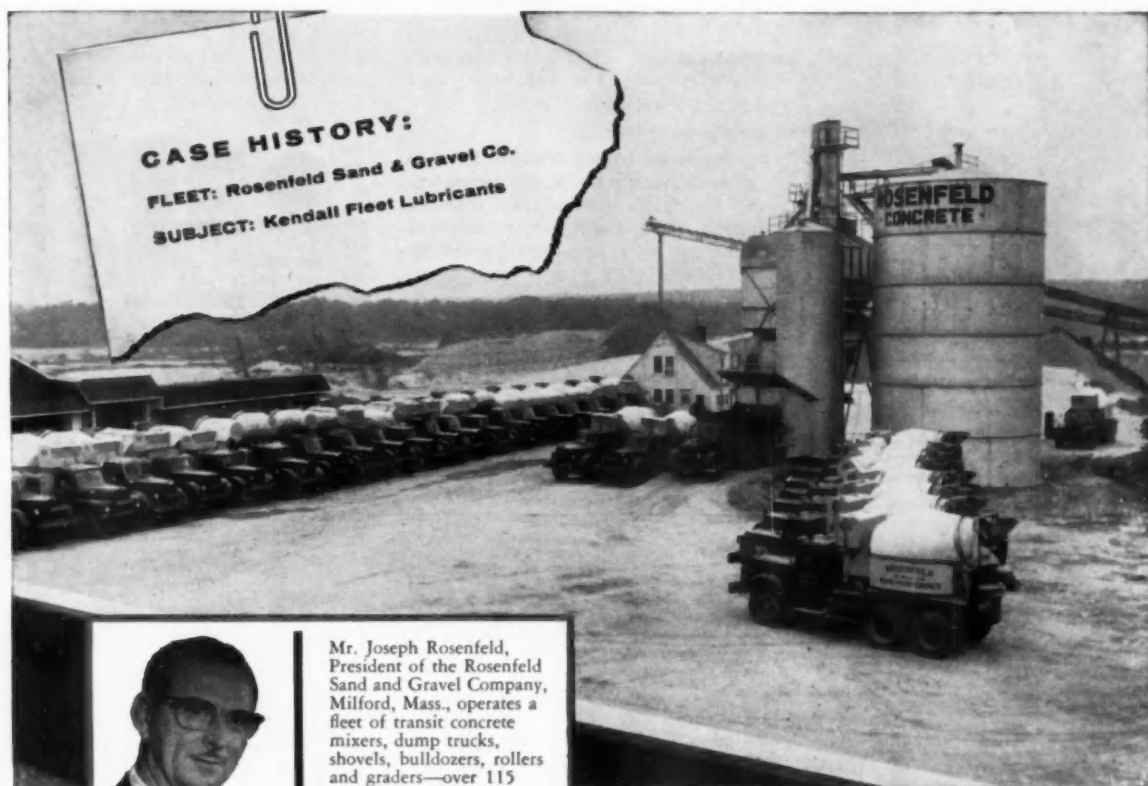
Transit Fleets Improve Safety

ST. LOUIS, MO., — The American Transit Association has honored 19 transit systems for outstanding passenger and traffic safety achievements during 1958. Their collision rate, as a group, was reduced 11.11 per cent and their passenger accident rate 4.10 per cent, as compared with 1957. The 95 entrants in the competition experienced only one passenger fatality for each one billion, 283 million passenger miles operated.

Silver plaques, representing top performance in each of the various population groups, were awarded to the following: (1) Hudson-Bergen Division, Public Service Coordinated Transport, New Jersey, Group I, serving urban populations over 1,000,000; (2) Division of Public Transit, City of Phoenix, Ariz., and San Diego (Cal.) Transit System, Group II, serving urban populations of 500,000 to 1,000,000; (3) Gary (Ind.) Transit, Inc., Group III, serving urban populations of 250,000 to 500,000; (4) South Carolina Electric & Gas Co., Charleston, S. C., Group IV, serving urban populations of 100,000 to 250,000; (6) Altoona & Logan Valley Electric Railway Co., Altoona, Pa., Group V, serving urban populations of 30,000 to 100,000; and (7) Central

(TURN TO PAGE 214, PLEASE)

COMMERCIAL CAR JOURNAL, June, 1959



Mr. Joseph Rosenfeld, President of the Rosenfeld Sand and Gravel Company, Milford, Mass., operates a fleet of transit concrete mixers, dump trucks, shovels, bulldozers, rollers and graders—over 115 pieces of heavy duty equipment in all.

"KENDALL LUBRICANTS - A KEY FACTOR IN OUR PROFITS FOR OVER 20 YEARS,"

states Mr. Rosenfeld, President.

Some of the quality Kendall Fleet Lubricants used by the Rosenfeld Company are:

F-L Oil (S-HD)
Non-Detergent
Motor Oil
No. 41 A Oil
90-140 All Oil
Gear Lube
90-140 Hypoid
Gear Lube
SR-1 Gear Lube

Kenlube S-831
Wheel Bearing
Kenlube S-825
Kenlube S-816
Kenlube S-823
Fibre Grease
Kenlube M-612
High Temp.- Light
Kenlube M-621
High Temp.- Reg.

All are refined exclusively by advanced processes from the cream of Pennsylvania Crude Oil, world's richest, to meet specialized fleet lubrication requirements.

"We've used Kendall Lubricants exclusively for over 20 years," reports Mr. Rosenfeld. "The detailed maintenance and service records we've kept on every piece of equipment give us proof of the results right to the penny. Kendall motor oils and greases have returned many times their cost through decreased maintenance expenses. Our equipment down time has been remarkably low. We get thousands of extra miles of service between overhauls, and we've added significantly to operational time between oil drain and lubrication intervals."

Kendall Quality Lubricants Can Help Improve Your Profit Picture, Too. For The Name Of Your Nearest Kendall Distributor, Write

**KENDALL REFINING COMPANY
BRADFORD, PENNSYLVANIA**
Lubrication Specialists since 1881



June News Roundup

Continued from Page 212

Division, Public Service Coordinated Transport, New Jersey, Group VI, serving urban and suburban populations of 30,000 and over.

Spector Freight System, Chicago, has announced 1958 as the safest year of highway driving in the fleet's history. Accident frequency rate was cut to 0.72 per 100,000 miles. In 1957 the figure was 0.74. Spector further reports that 1097 highway and city drivers have earned National Safety Council Safe Driving Awards for a year or more of accident-free driving.

Overland Express Ltd., Woodstock, Ontario, has presented safety awards to 92 per cent of its drivers for accident-free records in 1958. High man has a 22-year safety record.

Cincinnati (Ohio) Transit Co. has honored 593 bus operators for reducing the fleet's accidents by 11½ per cent in 1958. Leading the list were 30 drivers with 11 years of accidentless driving.

P. S. Dubrey Trucking Co., Shrewsbury, Mass., has awarded 31 safety pins to drivers with from one to six years perfect driving records.

Southland Ice Co., Ft. Worth, Tex., has 10 drivers who have driven two million accident free miles.

Davidson Transfer & Storage Co., Baltimore, Md., has presented safety awards to 88 road drivers and 52 local drivers. Eight men have 20 years or more of accidentless driving.



Orange Empire Co-op, Riverside, Cal., is operating 50 Diamond T Model No. 921N tractors. They pull tandem axle reefers and deliver citrus fruits throughout a four-state area. Units have a 65,000 lb GCW rating, are powered by the Cummins NH-220 diesel.



NEW



ELECTRIC 5U-HD IMPACTOOL

Light, powerful and easy to operate for long periods. Built to handle all but the biggest nuts and bolts. Ideal for day in and day out garage use. Also available in TORQUE CONTROL (Size 5UT) with adjustable torsion bars that provide torque control from 20 to 90 ft. lbs.



ELECTRIC 34U IMPACTOOL

Sturdily built for the tough, dirty jobs, but small enough to use on spring U-Bolts, Budd wheels, etc. I-R's 34U is the only electric tool you can buy that will handle the biggest motor chassis and wheel jobs on the road.



ELECTRIC 8U IMPACTOOL

Slightly larger than the new 5U-HD, this is the powerful and rugged multi-purpose Impacttool for breaking loose frozen and broken studs, reaming, tapping and other tough, service work.

18-933

Call your I-R Jobber today for details and prices on the most complete line of Air and Electric Impacttools for automotive service.

**The smartest way to reduce
labor costs and build your
service business overnight.**

National Cement Products Co., Toledo, Ohio, has placed in service three new Whites. They're the Model No. 302264, are equipped with Sidomatic unloaders for handling the 28,800 lb of cement blocks each carries. All are gasoline-powered.

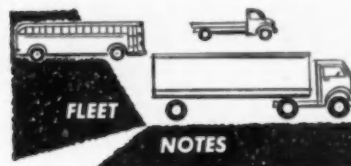
Keeshin Transport System, Toledo, Ohio, has taken delivery on 20 Highway trailers. The new units are 38-ft Highway Freightmasters featuring "Level-Flor" construction for increased cube capacity.

Branch Motor Express, New York City, has just added a half-million dollars worth of new equipment to its fleet. New units include 15 PU & D trucks, 30 high volume trailers, 10 flat-beds and 30 tractors.

Dohrn Transfer Co., Rock Island, Ill., has ordered 25 International diesel tractors. They're the Model No. AC-225-D equipped with Cummins NH-180 engines and 10-speed Road-Ranger transmissions.

Spector Freight System, Chicago, has added 18 new Ford tilt cabs to its fleet. Models range from C700's through C1000's.

Gateway Transportation Co., La Crosse, Wis., has ordered 12 new Highway trailers for city delivery service. They're 23-ft long, have closed tops and chain-gate and curtain rear closure. Order also includes ten 35-ft heavy-duty platform trailers with adjustable tandems, steel bulkheads and yellow-pine flooring.



William W. Ward has received an honorary degree from St. Francis College, Loretto, Pa., in recognition of his outstanding community service and business achievement. He is founder and president of The Ward Trucking Corp., Altoona, Pa.

Students majoring in Transportation at Denver (Colo.) University are receiving "laboratory training" at Ringsby Truck Lines' general office in Denver.

(TURN TO PAGE 218, PLEASE)

ONLY **Ingersoll-Rand** HAS ALL THE TOOLS TO HANDLE EVEN YOUR BIGGEST JOBS . . . FAST and EASY

434 AIR IMPACTOOL

This Impactool is NEW from end to end! Gives you 350% faster run down; uses 32% less air; is 25% lighter and 40% shorter. The ideal tool for heavy truck and bus jobs—makes wheel work a cinch. Be sure to try it!



(1-1/4" bolt size)



(1" bolt size)

310 AIR IMPACTOOL

The most powerful automotive Impactool built for one-hand operation. Compact, light weight construction and power make it the best tool for 80% of all truck tire work and many other service applications.

18-933-1

MC121 IMPACutter

Built for years of dependable service, this powerful, rugged tool can be used on a multitude of cutting, shearing, punching and chiseling applications.

8000 AIR TIRE TOOL

Ingersoll-Rand air tire tools like this can help you build a profitable volume business on tires and wheels. Tires come off rims quick and easy without sledge hammer sweat and trouble.



Ingersoll-Rand

11 Broadway, New York 4, N. Y.





Walter Ware, president and general manager, Tru-Mix Concrete, Inc., Portland, Oregon

FLEET OWNER REPORTS...

"NEW UNION 7600 GASOLINE IS MAKING MONEY FOR US"

"Our records prove New Union 7600 Gasoline is making money for us—

"Better performance is the unanimous opinion of our drivers. New 7600 Gasoline is giving better-than-ever performance throughout our fleet of Internationals and Diamond Ts. Greater power in every gear, fewer downshifts, mean more trips per unit per day.

"Increased mileage was noted immediately after we switched to New 7600. Fuel consumption dropped significantly when engine ignition was advanced to take advantage of its higher octane rating.

"Reduced maintenance costs are immediately apparent, too. Our shop superintendent reports New 7600 is cleaner-

burning. Carbon deposits in the combustion chamber, and replacements of fouled plugs are the lowest in our 12-year operational records."

As Walter Ware and other Western truck fleet operators have discovered — Union's New 7600 Gasoline is *powered like a premium but priced like a regular.*

New 7600 has the highest octane rating of any regular in the West... high enough to give knock-free performance to 4 out of 5 vehicles on the road.

And more: New 7600 contains Union's exclusive additive NR76 to keep carburetors cleaner, free from gum.

New 7600 is now available generally in the West. Contact your Union Oil representative for immediate delivery.

UNION OIL COMPANY OF CALIFORNIA **76**

UNION OIL CENTER, LOS ANGELES 17, CALIFORNIA, U.S.A.



Air temperature 108° . . . brake temperature 600°



Small load or BIG load,
you stop SAFER with

**American
Brakeblok.**

SPECIFY IT!



Bonded
Brake Shoe
Exchange

Riveted
Lining

Heavy Duty
Lining

You could fry an egg on the pavement. You could burn a roast on the brake drums.

On runs like this, ordinary brake linings glaze and fade. But not American Brakeblok linings.

Grades, desert heat, continuous braking don't steal their stopping power. Frictioneered for life, these solid, unyielding blocks maintain top friction value right down to the bolt top.

Surveys show American Brakeblok linings are preferred by one fifth of America's fleet operators . . . far more than any other leading brand. Small wonder . . . they're safer and longer lasting. Bring your safety up to date. Specify 1959 stopping power by American Brakeblok.

AMERICA'S SAFETY BRAKE LINING



AMERICAN BRAKEBLOK DIVISION • Executive Offices, P. O. Box 21, Birmingham, Mich.
Plants in Winchester, Va. • Cleveland, Ohio • Hillburn, N. Y. • Lindsay, Ont. • Mexico City, Mexico • Gif, France



ICC Class I Motor Carriers of Passengers

	No. of Carriers	Operating Ratio		Bus-Miles*			Passengers Carried*		
		1956	1957	1956	1957	%	1956	1957	%
Inter-city.....	142	89.4	91.0	826	871	-5.2	239	266	-10.1
Local/Suburban....	51	96.8	96.8	185	190	-2.9	829	866	-6.9
Total.....	193	91.3	92.2	1011	1061	-4.8	768	834	-7.9

Source: Interstate Commerce Commission.

*—In millions.

June News Roundup

Continued from Page 215

Chelsea Warehouses Inc., has gone to bat to help fight juvenile delinquency. An Allied Van agent in New York City, the moving firm is sponsoring a team in the Chelsea Softball Little League.

Saul Burten is new vice president, industrial relations for Branch Motor Express, New York City. He formerly was the fleet's director of maintenance and safety.

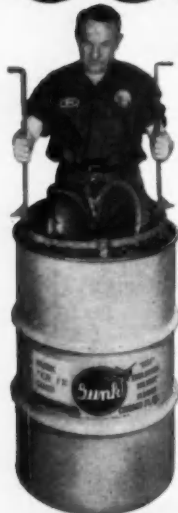
Brink's, Inc., Chicago, (the money movers) is presently celebrating its 100th anniversary. Brink's "fleet" started with a horse and buggy in Vermont in May, 1859. Today the company operates 1026 armored cars serving 2500 communities and "handles" more than 1½ billion dollars a day.

Eldon Miller, Inc., Iowa City, Iowa, is using a 985-mile private telephone system linking headquarters with 12 branches in a five-state area. System is leased from Bell Telephone and replaces a private line teletypewriter. New system is dial-operated. Any terminal can dial headquarters or another terminal. New system permits conference calls also.



GUNK® Hydro-Seal

the original and still the best metal cleaner and paint stripper



Now in 3 Gallon and 6 Gallon size carburetor bench kits with basket . . . also 1 Gallon cans.

For easier cleaning of Automatic Transmission and Engine parts, GUNK H.S. is supplied in 30 and 55 Gallon size open-head drums which are ideal immersion tanks. Heavy duty baskets are available for easy handling of parts. The replenishable floating-seal makes GUNK H.S. last longer . . . Powerful self-scouring action SAVES LABOR!

Write us today for complete information

® Reg. trade mark

GUNK CHICAGO CO., River Forest, Illinois
serving the Midwest and Southwest

RADIATOR SPECIALTY CO., Charlotte, No. Carolina
serving the East, Southeast and far West



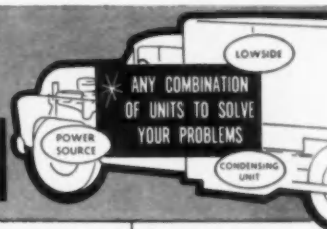
Pierce Brake Lining Co., Lawrence, Mass., is now supplying brake blocks for trucks and construction equipment through jobbers and local distributors.

Duralite Mfg. Co., Baltimore, Md., makers of Duralite truck bodies, has announced that Collins Associates, Cincinnati, Ohio, is distributing the body line nationally.

Harold Link is the new general service manager for the Reo Div., The White Motor Co.

Napco Industries, Inc., Minneapolis, Minn., has acquired manufacturing and sales rights for Center Line Steering Axles from Transportation Engineering Components, Inc.

KOLD-HOLD[®] TRUCK REFRIGERATION



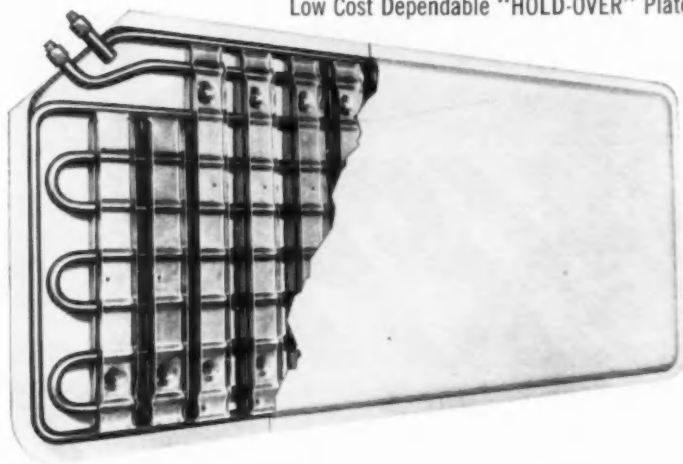
MARK mechanical	CROWN hydraulic	LANCE retail milk	CREST packaged condensing unit	BLOWERS hi and low temp	PLATES quick action and hold-over
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ENGINEERED TO THE NEED— MINIMIZES MAINTENANCE PROBLEMS

A complete line of drives, low sides and high sides makes it possible for KOLD-HOLD to engineer refrigeration systems that match the operating requirements of the individual truck. The right units are selected to meet the body size and temperature required, length of route, number of stops, road time versus "curb time" and many other variable factors. The result is a refrigeration system with the capacity to provide plenty of protection for the load without exceeding the mechanical ability of the system. This carefully built type of refrigeration system is paying off for thousands of satisfied users in unflinching load protection with minimum truck "down time" and maintenance.

Ask your KOLD-HOLD man to help you analyze your truck refrigeration problems. It will pay to invest in equipment tailored to your needs.

Low Cost Dependable "HOLD-OVER" Plates

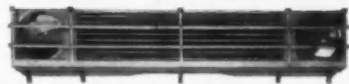


Modern, streamlined KOLD-HOLD "hold-over" plates provide bonus refrigeration for lasting load protection. They are designed to save weight as well as to give you all the refrigeration you need.

The streamlined design produces exceptionally effective air flow. Internal fins spread the heat absorption qualities over the entire surface areas of both sides of the plate. Patented perimeter freezing permits **complete** filling of the plates without danger of strain on the seams during freezing. This means more "hold-over" refrigeration than provided by conventional plates of the same size.

KOLD-HOLD "Hold-Over" Plates are available in 1", 1½", 2", 2½" and 3¼" thicknesses; sizes in 18" to 36" widths and 30" to 120" in length; capacities to 42,000 BTU. They can be used with KOLD-HOLD MARK and CROWN continuous truck refrigeration condensing units or for virtually every application with make-and-break connections or mounted compressor where continuous refrigeration is not required.

For trouble-free, economical "hold-over" refrigeration in trucks requiring temperatures from -10° to +60°, use the most advanced plate on the market today — KOLD-HOLD "Hold-Over" Plates.



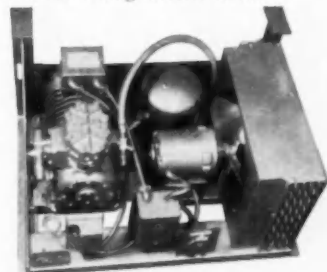
LOW-TEMP BLOWER

The advanced design of the KOLD-HOLD SUPER "50" Blower offers important advantages over conventional types of blowers. Its "Ribbon" design gives more load and aisle space. The two fans are positioned to direct the air around the load to envelop your product in a protective blanket of cold. The SUPER "50" represents the ultimate in load protection for truck bodies.



PROVEN POWER SOURCE
for MECHANICAL DRIVE

The flexible shaft drive system used in KOLD-HOLD MARK AND LANCE systems has proved simple and trouble-free in many automotive applications. Power is transmitted from the truck engine crankshaft through the flexible shaft and a cushioning electric clutch.



PACKAGED CONDENSING UNIT

This KOLD-HOLD unit is a complete high-side ready for installation and use in freezing "hold-over" plates. It features easy installation and servicing. Plugs into electrical outlet to freeze plates in truck on "stand-by" or over night.



WRITE TODAY FOR
FREE CATALOG NO. 58

KOLD-HOLD[®]

division

Tranter Manufacturing, inc.

230 E. Hazel St.

Lansing 9, Michigan

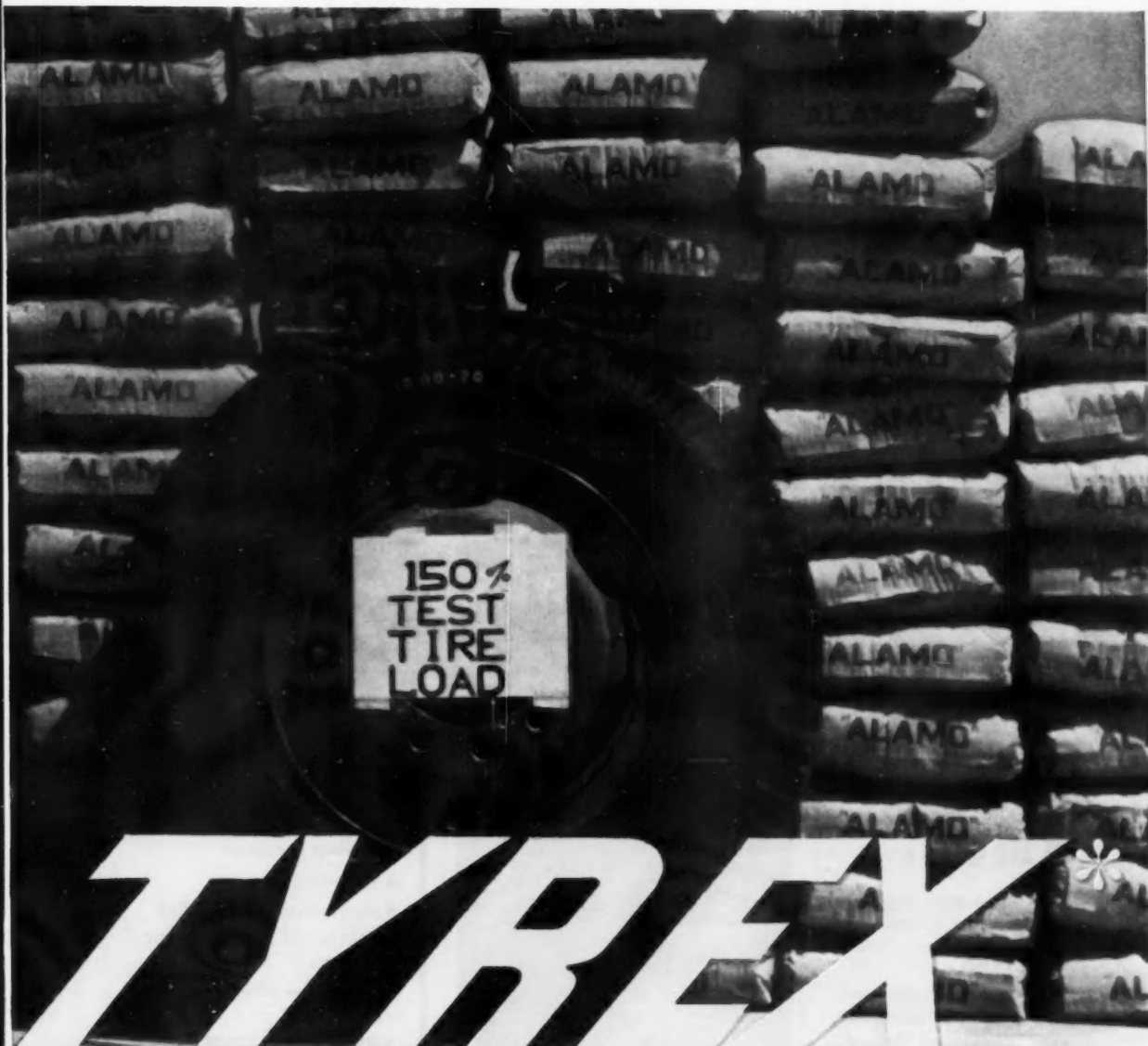
GET MORE TIRE POWER



2 **PROVED OVER SCORCHING ROADBEDS**
Tire and roadbed temperatures were checked and recorded. Under the blazing Texas sun roadbed temperatures soared to 139°. But tires made with TYREX viscose tire cord easily withstood the punishment.



3 **30,000 MILES LATER... STILL TREAD LEFT**
Some tires failed from separation before testing was completed... couldn't be used or recapped. Tires containing TYREX viscose cord went to 30,000 miles...had tread left and were recappable.



4 **TYREX VISCOSE CORD GIVES 21.7% LONGER TREAD LIFE** Careful measurements of all tires showed: the rate of tread wear of 10 ply tires made with TYREX viscose tire cord was up to 21.7% better than 12 ply tires made with nylon cord.

1 **TESTED UNDER BRUTAL OVERLOADS**

An independent testing company recently put nylon truck tires and tires containing TYREX viscose cord through their paces under the most punishing conditions . . . at overloads up to 50% above Tire and Rim Standards.

Get more tire power . . . more miles per dollar . . . less downtime. Specify tires made with TYREX viscose tire cord—the tough new cord that makes any tire run cooler, softer, quieter and safer . . . without flat spotting.

TYREX INC. EMPIRE STATE BUILDING, NEW YORK 1, N.Y.
*TYREX is a certification mark of TYREX Inc., for viscose tire cord and yarn. TYREX viscose tire cord and yarn is also produced and available in Canada.

Make your
replacement
choice

RMC
VALVES
backed by
50 YEARS OF
LEADERSHIP
in Original
Equipment
VALVE
DEVELOPMENT

RMC...

pioneer in the origination, engineering and development of the automotive valve . . . knows what's required of valves.

That's why **RMC** two-piece exhaust valves, Stellite-faced and heat-banded valves and the new Aluminized valves can be relied upon for the best possible performance under the toughest operating conditions.

Next time, specify **RMC** . . . the valves backed by more than a half century of know-how.

Make the job complete with RMC Valve Train Parts

VALVE SPRINGS	VALVE SEATS
VALVE LOCKS	ROTATOR VALVE KITS
VALVE GUIDES	VALVE SPRING INSERTS

Warehoused in all principal cities. Sold by leading Replacement Parts Wholesalers everywhere.

FOR INFORMATION

WRITE TO

RICH MANUFACTURING CORP.
BATTLE CREEK, MICH.

Trailer Tractor



To help solve the problem of moving 60-ft mobile homes through states with a 65-ft overall length limit Marshfield Homes, Inc., Marshfield, Wis., uses a forward-control International Metro with a shortened cab. Basically a Model No. AMC-160, the unit has two trailer ball hitches—one located forward of the rear wheels which is used in 65-ft limit states. This causes the mobile home to ride slightly piggy-back. The normal hitch is located in the rear and is used in states where longer overall length is permitted.

NEW! EXTRA-HEAVY CONSTRUCTION AXLE STANDS by KEN-TOOL

Sure-Grip Saddle Self-Locking Tripod Base



65% Overload Design Non-Tilt

A size for every job! Wide tripod base eliminates rocking, even on rough or sloping floors . . .

3-Ton T-124

Passenger cars



5-Ton T-127

Passenger cars, light trucks



10-TON T-128

trucks, buses



7-TON T-125

medium trucks, farm equipment



15-TON T-129

tractor-trailer vans, heavy contractor equipment

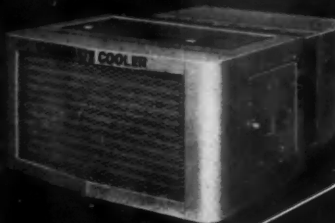


SELF-LEVELING TRIPOD DESIGN

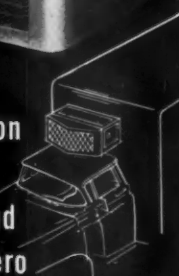
ORDER FROM YOUR JOBBER

KEN-TOOL MFG. CO.
AKRON 5, OHIO

HUNTER CARGO COOLERS



for truck refrigeration in the medium and down-to-zero temperature ranges



MODELS H-30 AND HE-30
for down-to-zero, multiple-drop operations

MODELS H-20 AND HE-20
for medium temperature, multiple-drop operations

- hydraulically driven
- thermostatically controlled
- light weight — permit bigger payloads
- compact — occupy less cargo space
- more refrigeration per pound of weight
- easily installed, easily serviced
- lowest initial cost
- economical to operate and maintain
- optional electric standby power
- positive dependability
- long work life
- full year warranty

Write for literature on models to fit your specific requirements.



HUNTER MANUFACTURING CO.
30525 AURORA RD.
SOLON, OHIO
TRANSPORT HEATING AND REFRIGERATION

The Man from Hobbs asks:



WHAT'S YOUR **RQ**?

*Reefer Quotient

Now's the time to check your refrigerated vans
for peak efficiency to meet heavy schedules ahead

If you operate Hobbs reefers, such as the new MCA 1100 above, you'll score high on the R. Q. test, because you know how efficient reefer operation can be with Hobbs equipment. Just for fun, take the test and imagine yourself without a Hobbs reefer. Man, you'll be in trouble. Not just on the test, but on the road.

Check yes or no for each question, then turn page upside down to find your R. Q.

	Yes	No
1. All my reefers are designed to withstand the heat of the highways, yet maintain optimum conditions inside.	_____	_____
2. All refrigeration units on my trailers deliver constantly correct temperature to insure safe hauls every trip.	_____	_____
3. All reefers in my fleet combine steel and aluminum in their construction for maximum strength and space and minimum weight and investment.	_____	_____
4. All my reefers are built so that the entire payload space is cooled evenly with no dead space for heat accumulation.	_____	_____
5. There is no positive metal to metal contact in my reefers which might cause heat transfer and prevent holding required temperature.	_____	_____
6. My reefers have interlocking aluminum duct floors to assure efficient cold air circulation.	_____	_____
7. Engineered installation of top quality insulation materials in my reefers assures me of lower refrigeration costs.	_____	_____
8. Doors on my reefers are double sealed with weather-proof plastic gaskets to keep my vans air tight.	_____	_____
9. When I bought my vans I had a choice of lengths and cubic capacity to fit my anticipated payloads.	_____	_____
10. There is a dealer near me who knows my hauling problems and helps me toward more profitable operations.	_____	_____



**MULTI-CHOICE
Aluminum
REEFER VANS**

0 "Yes" — Call the Man from Hobbs immediately.
1-4 "Yes" — You must have talked to the Man from Hobbs at some time, but have you talked to him recently?
5-9 "Yes" — You probably talk to the Man from Hobbs regularly, follow his recommendations, and are operating at top efficiency. You have exceedingly good judgement.



THE MAN FROM HOBBS

- KNOWS TRAILERS
- KNOWS YOUR NEEDS
- SERVES YOU WELL
- IS NEAR YOU

SEE HIM FOR ALL YOUR HAULING JOBS!

HOBBS TRAILERS

609 NORTH MAIN

FORT WORTH, TEXAS

SALES AND SERVICE THROUGHOUT THE WESTERN HEMISPHERE

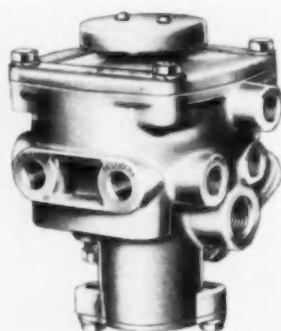
NEW

PRODUCTS

DESCRIBING RECENTLY ANNOUNCED PRODUCTS AND EQUIPMENT OF INTEREST TO MEN CONCERNED WITH TRUCK, BUS AND CONSTRUCTION FLEET MANAGEMENT

A NEW SERVICE
FOR READERS

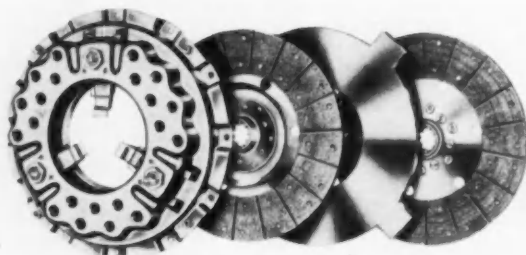
For quick information about New Products you're interested in, phone or write the person named directly below the description



Relay Emergency Valve

provides faster application and release and is simple to maintain, says the maker Bendix-Westinghouse. Known as the RE-4 Relay Emergency Valve, it is now available for field installation. The new valve has a relay piston instead of a diaphragm. This gives immediate pressure balance between tractor and trailer air brake systems to within 1 psi. Inlet and exhaust valve capacity is double that of older type emergency valves. The RE-4 weighs 4.7 lb and is interchangeable with any other relay emergency valve.

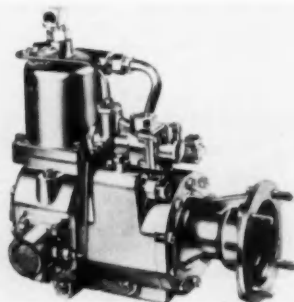
Contact H. J. Begin, Adv. & Public Relations Dir., Bendix - Westinghouse Automotive Air Brake Co., 901 Cleveland St., Elyria, Ohio. Phone: FAirfax 3-3151.



14-in. Two-Plate DPB Clutch

is for heavy-duty use in diesel powered on-highway vehicles. The two-plate unit is recommended for engines developing up to 735 ft lb gross torque. Clutch face area is 428 sq in. Made by Lipe-Rollway, it features lightweight construction. The intermediate clutch plate is retracted during clutch disengagement by cylindrical springs. This is said to give easier shifting. The new direct pressure clutch is offered with rigid or dampner-type driven disc assemblies with spline sizes of 1½ and 1¾ in. 10C SAE.

Contact James H. Williams, Sales Mgr., Lipe-Rollway Corp., 806 Emerson Ave., Syracuse 1, N. Y. Phone: HU 8-5411.



Rotary Air Compressor

has a 12 cfm capacity and is for use on truck-type diesel engines. Called the Rotary Drive-Thru Compressor, it has a lubricating system that circulates engine oil through the unit during the non-pumping cycle and cools the compressor between cycles by completely changing the oil in the sump. The rotary compression principle is reported to give smooth, silent and cool operation, a dependable air reserve and quick air pressure recovery.

Contact L. C. Dobrunz, Sales Promotion Mgr., Wagner Electric Corp., 6400 Plymouth Ave., St. Louis 33, Mo. Phone: PArkway 1-5000.

Portable Steam Cleaner

is called the Speedystream "100." It can be operated on kerosene or Nos. 1 or 2 fuel oil. Ignition is automatic. Cleaner capacity is 100 gph at 150 psi. Pressure can be adjusted from 50 lb up. The Speedystream has a water float tank with an anti-siphon valve which gives a uniform water flow. Cleaner is ready for work in 90 seconds, has a rotary pump which eliminates vibration. Soap tank has 5 lb capacity. One filling lasts six to seven hours. The Speedystream "100" is priced under \$500 f.o.b. the factory.

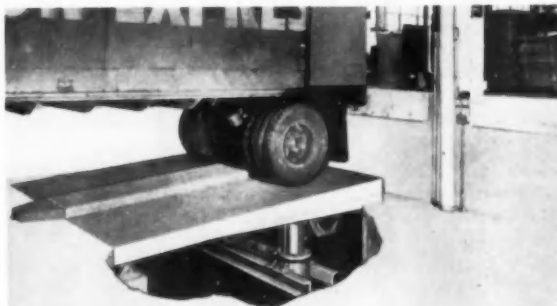
Contact Fred H. Riker, Mgr., Steam Generator Div., Pantex Mfg. Corp., P. O. Box 660, Pawtucket, R. I. Phone: PAwtucket 2-7500.



Truck Leveler

raises or lowers truck bed for easier and faster loading. A steel platform in front of the loading dock is mounted on two oil-hydraulic jacks. When backed into the loading platform, the truck's rear wheels can be lowered or raised to level truck bed with loading platform. A push-button control operates the Leveler. Capacity is 40,000 lb. Vertical travel is 28 in. The Rotary Truck Leveler can be installed at new or existing buildings and is said to require practically no maintenance.

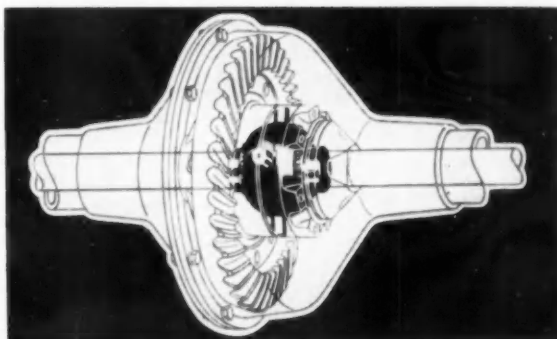
Contact Hal Hamm, Sales Mgr., Industrial Div., Rotary Lift Co., 1054 Kansas St., Memphis 2, Tenn. Phone: WHitchall 8-8561.



NoSpin Differential

is an improved silent-type full locking unit for passenger cars and light trucks. The device prevents individual wheel spin when driving wheels lose traction. The new model is said to eliminate the sometimes objectionable cam clicking noise made by conventional NoSpin differentials. The new unit is also suitable for special vehicles having planetary or hub gear reduction units in addition to standard ring gear drives.

Contact I. H. Hagglung, Vice Pres. Sales, Detroit Automotive Products Corp., 8701 Grinnell Ave., Detroit 13, Mich. Phone: WA 1-9700.



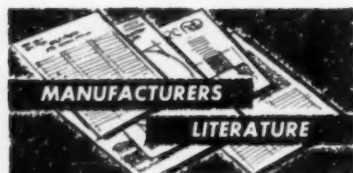
Mobile Floor Crane

has an open frame feature which permits working area for mechanic or jack directly beneath the unit's frame (see photo). Crane capacity is 2000 lb with boom at 52 in. Boom can extend to 75 in. bringing it to a height of 9½ ft when raised to its highest point. The hydraulic pump is hand-operated and features a separate hydraulic cylinder with oil contained in a reservoir built in the frame.

Contact Robin Renshaw, Vice Pres., Modern Hydraulics, Inc., 130 W. Grand Lake Blvd., West Chicago, Ill.

(TURN TO NEXT PAGE, PLEASE)





(See also Fleetman's Library on p. 76)

Portable air compressors are described and illustrated in a recent bulletin from the Campbell-Hausfeld Co., Harrison, Ohio. Shown are the "Tankmobile" Air-Power units featuring the Pressure Princess utility compressors. Units are wheel-mounted for mobility. Ask for free Bulletin No. PP 300.

Tool catalog shows the complete line of the Kennedy Service Tools Co., 788 Evans Ave., Akron 5, Ohio. Shown are tire tools, tune-up equipment, hand tools and taps and dies. Write for your free copy.

"New GM Diesel Power for Highway Trucks" is the title of an eight-page illustrated brochure from Detroit Diesel Engine Division. Described and illustrated are the 71 E Series inline diesels and the new 53 and 71 V-model diesels. New engines are adaptable for any size and style truck from 20,000 GVW to over 75,000 GCW. You can get copies of the brochure from GM Diesel distributors or by writing Detroit Diesel Engine Div., General Motors Corp., Detroit 28, Mich.

Goodyear steel cord truck tires are described and illustrated in a new bulletin. Shown is the Goodyear line of Unisteel tires with pictures and descriptions of features. See your Goodyear distributor or write the Goodyear Tire & Rubber Co., Akron 16, Ohio. Request Form No. S-11115-R.

Straddle truck brochure shows the Hyster Model No. M300E. The new model has a 30,000 lb capacity. See your Hyster industrial truck dealer or write the Hyster Co., 1003 Myers St., Danville, Ill.

Hall-Scott six-cylinder truck and bus engines are described in three bulletins from Hercules Motors Corp., Canton, Ohio. Shown are the Model Nos. 590 GH-1 and 590 GV-3 gasoline engines and the 590 BV-1 butane-propane engine. All three have 590 cu. in. displacement. Each bulletin has engine photo, installation diagram, power chart and specifications.

Hoists and cranes are described in a new eight page folder from Wright Hoist Division. Shown are motor-operated and hand-operated hoists, traveling shop cranes and jib cranes. Get Folder No. DH-28 by writing Wright Hoist Div., American Chain and Cable Co., York, Pa. It's free.

Soldering iron tips are described and illustrated in new literature from Hexacon Electric Co., 529 W. Clay Ave., Roselle Park, N. J. Shown are the various tip shapes and sizes. Price list is included. Request Catalog No. 601.

1959 Tung-Sol lamp and flasher servicing guide has complete specifications for cars, trucks and buses from 1946 through 1959. It's step-indexed for quick reference, gives all necessary information on lamps and flashers. See your local Tung-Sol Electric jobber for a free copy.

Air compressor bulletin from the Le Roi Div., Westinghouse Air Brake Co., shows the company's compressor line from 1/2 to 15 hp. Shown are single-stage and two-stage models with pressure from 80 to 250 psi. Write the company at Milwaukee 1, Wis. Request a free copy of Bulletin No. SG-2.

Mobile infrared paint ovens are described in new literature from Fostoria Pressed Steel Corp., Fostoria, Ohio. Shown is the fully automatic traveling type Durabake models for complete paint jobs. Write the company for a free folder.

Reo's new O. H. 185 engine is described in new literature from Reo Div., White Motor Co., Lansing 20, Mich. Get the details for yourself. Pick up a copy from your local Reo dealer or write for a free copy.

Fifth wheel dock and running boards are shown in a new catalog. They are non-skid, open grille type which fit forward of fifth wheel behind the cab. They are said to be light-weight and slip-proof. Get your catalog from the manufacturer, Bustin Steel Products, Inc., Dover, N. J.

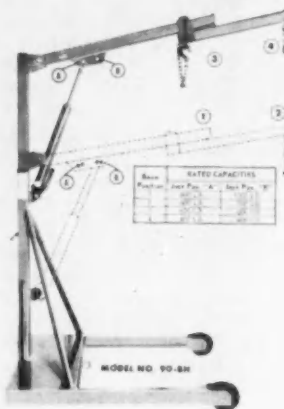
Hercules diesel power units are described in two new bulletins. Bulletin No. P.U. 502-A describes the four-cylinder Model DD-226 units. Bulletin No. P.U. 504-B shows the six-cylinder Model DD-339 units. Both engines are overhead valve, direct injection types. Write Hercules Motors Corp., Canton, Ohio, for free copies.

New Products

Continued from Page 225

Portable Crane

has a half-ton capacity with a lifting range from 16 in. to more than 10 ft. Called Little Oscar, it is wheel and caster-mounted for mobility.



Crane is 33 in. wide, has a two-position boom and a lift speed of 10 ft per minute. Features include a heavy-duty safety release valve for easy load control when lowering heavy loads.

Contact Wyman Wisti, Star Machine & Tool Co., 201 S. E. Sixth St., Minneapolis, Minn. Phone: FE 6-6611.

Torque Wrenches

are a new adjustable snap torque type. A dual scale is built into each wrench so that either in. lb or ft lb settings can be made without converting figures. After the desired torque is preset, when the wrench is used there's a distinct snap which is both felt and heard signaling that the desired torque has been reached. The new line includes six models in both plain square drive and ratchet drive types.

Contact Richard Skidmore, Pres., Skidmore Engineering Co., 530 Richmond Rd. Bedford Heights, Ohio. Phone: MONTrose 2-3312.

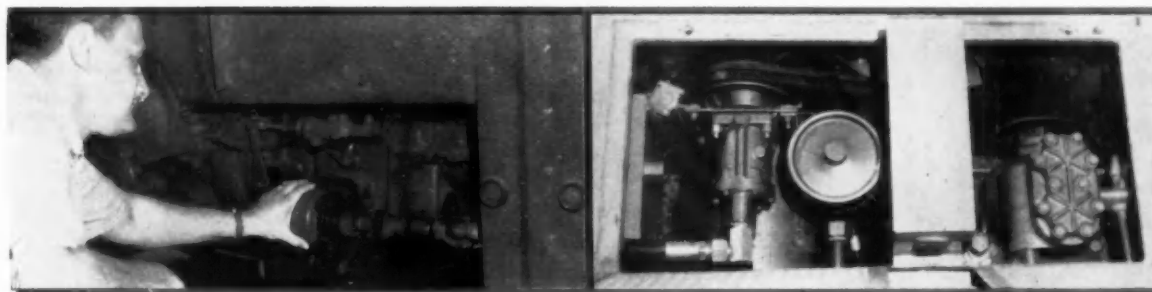
Turn Signal Switch

is a four-wire self-cancelling type which has a built-in throw-over switch to flash all four signals at once for emergency signaling. Named (TURN TO PAGE 228, PLEASE)

Sundstrand drives protect quality, cut refrigeration costs for Tropicana



Three types of Tropicana trucks equipped with Sundstrand hydraulic truck refrigeration drives that provide constant output at all truck speeds.



Maintenance supervisor inspects power take-off mounting of Sundstrand constant speed drive pump. Maintenance needs are down from former method.

Refrigeration unit over cab houses two remaining components of Sundstrand system, small reservoir and piston-type motor that drives refrigeration compressor.

Ease of operation, minimum maintenance, and simple driver orientation are benefits resulting from the use of Sundstrand truck refrigeration drives on three types of retail delivery trucks used in Eastern and Midwestern cities by Tropicana Products, Inc., Bradenton, Florida. Tropicana processes fresh orange juice and insures peak flavor by exercising close control over temperatures until the moment it is placed in coolers at the retail outlet.

Properly functioning refrigeration equipment is an important part of the Tropicana success story. Sundstrand con-

stant speed truck refrigeration drives are used in over-the-engine mountings on 26 GMC 1-ton vending delivery trucks and 30 standard city delivery and walk-in city delivery trucks (both GMC and White). Power take-off mounting is used on 24 urban delivery trucks (White 10-wheelers).

These advantages are reported by Tropicana's maintenance superintendent: (1) Quieter operation, (2) lower cost operation, (3) lower maintenance costs, (4) less likely to break down, and (5) simple electrical hookup for standby operation, no declutching required.

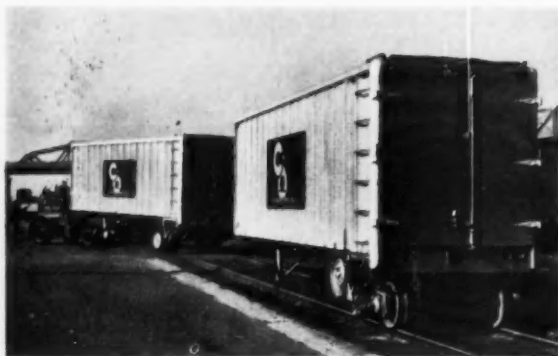


SUNDSTRAND HYDRAULICS

DIVISION OF SUNDSTRAND CORPORATION

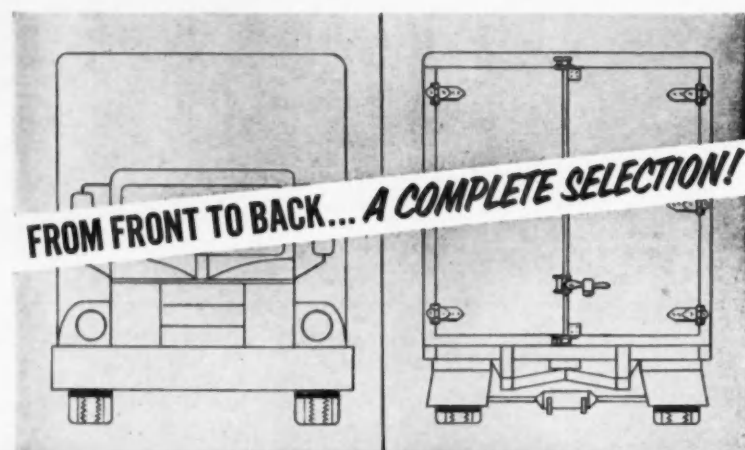
2210 Harrison Ave., Rockford, Ill.—Eastern Sales Office: 89 Summit Ave., Summit, N. J.

AIRCRAFT AND INDUSTRIAL HYDRAULIC TRANSMISSIONS, PUMPS, MOTORS AND VALVES • OIL BURNER PUMPS • AIR SANDERS • LATHES, MILLING, BROACHING AND SPECIAL MACHINES
BROACHING TOOLS • MAGNETIC CHUCKS • PACKAGING MACHINERY



Look, Ma, No Flatcar!!

Piggy-back without a flatcar went into operation last month in Michigan. Chesapeake & Ohio Railroad put three of its dual wheel (rail or highway) "Railvans" to work hauling mail and express between Grand Rapids and Petoskey. They're run as part of regular passenger train consist, attach to the rear end. So far everything's OK, says the C&O. It plans to put four more in service this month.



HANSEN *COMMERCIAL BODY* HARDWARE



Hinges, locks, handles, window regulators and other accessories . . . just about everything you need to complete a fine body building job, you'll find in the Hansen Commercial Body Hardware line. Send for complete literature today!

**HANSEN... The Hardware
For Hard Wear**

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All Principal Cities



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New Products

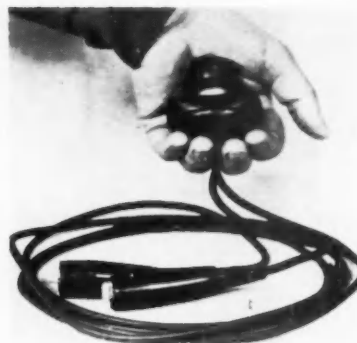
Continued from Page 226

the Pathfinder Model No. 4W-9004 switch, it comes completely assembled ready for installation. A heavy-duty flasher is included.

Contact A. Milman, Auto Lamp Mfg. Co., 2909 S. Indiana Ave., Chicago 16, Ill. Phone: CA 5-8800.

Remote Starter Switch

operates any of the new solenoids that cause many other remote starter switches to fail, says the maker.



Called the Fox Valley Power Button, it comes with 5-ft leads with insulated clips. Accidental short circuits from wrong connections will not damage it, it's reported.

Contact James A. Umbarger, Pres., Fox Valley Instrument Co., Highway 27, Sheboygan, Mich.

AC Arc Welder

has an operating range from 25 to 295 amps. It's said to be particularly suitable for fleet maintenance shops and construction welding. The new 94 Series welders feature fiber glass

(TURN TO PAGE 232, PLEASE)

Why does Patent #2841631 mean battery savings to you?



**NEW
PATENTED
CONSTRUCTION**

Three years ago Gould-National announced the Silver Cobalt/Sealed Charge battery and reported that this new construction gave 300% greater resistance to overcharge (No. 1 battery killer). Now—millions of batteries later, we continue to make the same claim—for Silver Cobalt construction is actually better than promised. In fact the difference between Silver Cobalt and the ordinary battery is so marked that the US Patent Office has issued Patent No. 2841631 covering this construction.



In Gould-National batteries and only in Gould-National batteries you get the advantages of Silver Cobalt/Sealed Charge—your assurance of 300% greater resistance to overcharge plus increased resistance to undercharge.

For complete information on what this, coupled with our unique Fleet Battery Maintenance Plan, can mean in cutting your battery costs, write today to: Fleet Department, Gould-National Batteries, Inc., St. Paul 1, Minnesota, the service is free.



GOULD-NATIONAL BATTERIES, INC.

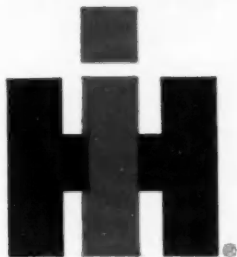
St. Paul 1, Minn.



PROVEN DESIGN... HIGH QUALITY

*International Diesel Trucks
have it for any job!*

← **Proven design—Built with premium quality.** INTERNATIONAL DCO-Series Trucks are available with seven diesel engine options offering from 180 to 335 hp. Of tilt-cab-over design, these single or tandem axle models have 54 or 72-in. bumper-to-back-of-cab non-sleeper or 72 and 80-in. sleeper cabs. Aluminum frame side rails, crossmembers and gussets and special lightweight suspension are available to further reduce weight of standard chassis without reducing stamina. Single and tandem axle models in GCW range to 76,800 lbs.



Rugged INTERNATIONAL RD-220-H model has three diesel engine options ranging from 180 to 220 hp. Match power options with a choice of 11 transmissions and two auxiliaries. The powerful result is dependable, smooth-working performance that keeps heavy-duty payloads moving on schedule—cuts cost with reduced operating expense and downtime. Rear axles to 23,000 lbs., front axles to 11,000 lbs. Optional power steering.

International Harvester Co., Chicago • Motor Trucks • Crawler Tractors • Construction Equipment • McCormick • Farm Equipment and Fernald • Tractors

INTERNATIONAL[®] TRUCKS WORLD'S MOST COMPLETE LINE

New Products

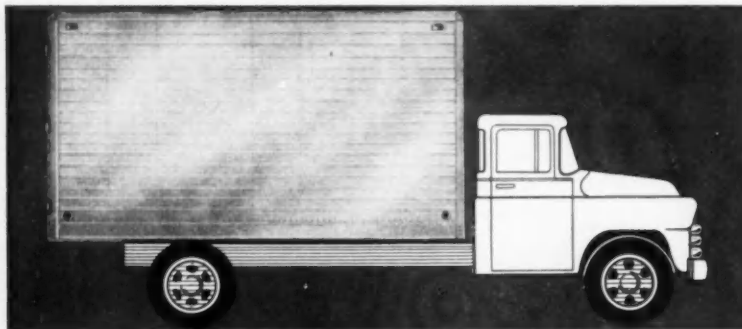
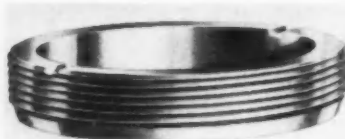
Continued from Page 228

construction and heavy-duty transformers. They can be used on most any welding jobs from light sheet metals to heavy steel plate.

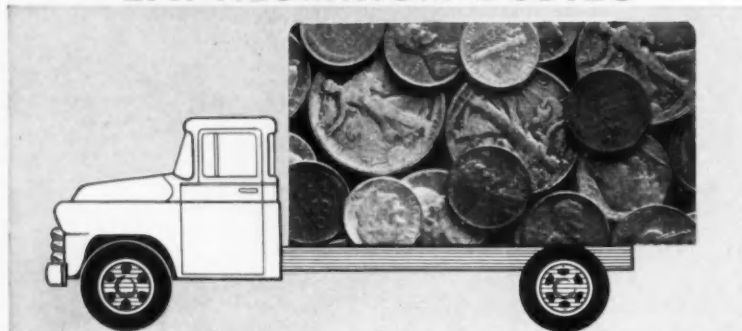
Contact Marquette Mfg. Co., 307 E. Hennepin Ave., Minneapolis 14, Minn.

Screw-In Valve Seat

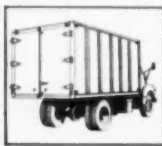
is made out of stainless metal and is said to eliminate the major causes of valve failure. The self-locking Screw-In Valve Seat Insert is reported to be better than conventional pressed-in valve seats which tend to



LYN ALUMINUM BODIES



DELIVER MORE PROFITS FOR YOU!



Outside Post Model

Here's why...

Bigger Payloads—LYN 100% Aluminum bodies reduce deadload up to 40%... you get bigger payloads per trip.

More Durable—LYN superior design guarantees leak-proof construction. LYN bodies cannot rack, drum or balloon. And aluminum is 10 to 20% stronger than steel... LYN bodies last longer.

Lowest Cost—Low-priced LYN aluminum bodies are more completely factory-built than any other on the market. Your dealer can assemble your LYN body, ready to mount, in just two man hours. That adds up to more savings for you! AND—rustproof aluminum never needs painting.

All these facts add up! LYN... Your Best Buy in Bodies!



For more profit-making facts, see your LYN dealer... or write:

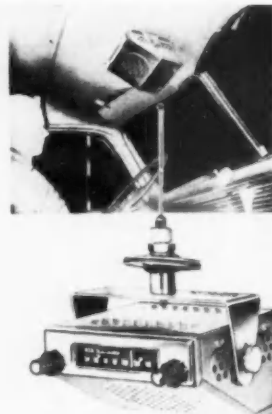
LYNCOACH & TRUCK CO., INC.
Manufacturers of Truck Bodies since 1929 Oneonta, N. Y.

distort and warp out of round. It's available in sizes from 1½ to 4 in. and is installed with special tools to give proper alignment and precision fit.

Contact D. R. Peterson, Pres., Peterson Machine Tool, Inc., 6200 Merriam Dr., Merriam, Kan. Phone: HE 2-7500.

Truck Radio Set

has a new one-hole mount antenna design. Named the ATR Truck Karadio, it has six tubes but is said to give eight-tube performance. The



unit is installed in the truck cab roof (as shown) and has all controls, speaker and tubes in one unit.

Contact Mr. Goffstein, Gen. Mgr., American Television & Radio Co., 300 E. 4th St., St. Paul, Minn.

Battery Charger-Tester

has a self-adjusting charging system which automatically adjusts the rate of charge the battery can safely absorb. The Model QT has a cell balance test system for both open circuit and load tests on the battery. Silicon rectifier is standard equipment.

Contact Christie Electric Corp., 3410 W. 67th St., Los Angeles 43, Cal.

Load Holder

consists of a rail with flanged plug holes in which the fastener plugs are set. Called Cargo-Lock, the system uses telescoping rods which are placed across the trailer to keep cargo from shifting. Ends fit into the rail holes to make the load secure.

Contact Arden Collins, Pres., Collins Associates, Inc. 4902 Huewerth Ave., Cincinnati 38, Ohio. Phone: GR 1-9999.

(TURN TO PAGE 234, PLEASE)

How to maintain temperature in a refrigerated cargo trailer

To hold down heat gain on the road, adequate air and moisture barriers must be built into refrigerated cargo trailers. When heat, air, and moisture get into insulation, efficiency is often reduced to the point that it becomes impossible to maintain correct temperatures.

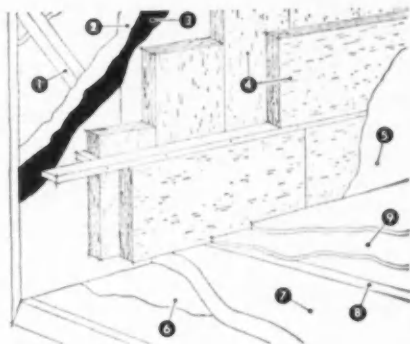
The best way to cut down heat and moisture gain is by sealing the outer shell. The better that seal, the better the investment in longer insulation life and more efficient service.

Armstrong has developed two efficient sealing methods. When interior framing is complex, as shown in the sketch, hardboard can be applied over the framework. This is sprayed with a rubber or asphaltic type sealer and covered with vapor-barrier paper. Where interior framing is simple, the paper can be cemented over each framing member and at all corners.

Fiberglas AT type insulation is then applied, followed by an inner liner. AT Fiberglas is highly efficient, has high resistance to slump, and is easy to apply.

For lightweight construction and load-bearing strength, floors should be insulated with Armstrong Armalite, a foamed polystyrene board-type material with unusually high insulating efficiency and moisture resistance.

For full information on Fiberglas, Armalite, and the complete line of Armstrong insulations for refrigerated bodies, write today to Armstrong Cork Company, 2106 Rugby Street, Lancaster, Pa.



body sealing where interior framing is complex

1 metal framing • 2 hardboard • 3 spray coating
• 4 Fiberglas insulation • 5 inner liner • 6 vapor-barrier paper • 7 Armalite insulation • 8 sleepers
• 9 subfloor.

3 ways moisture enters insulation space

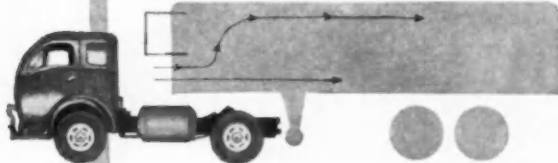


Fig. 1

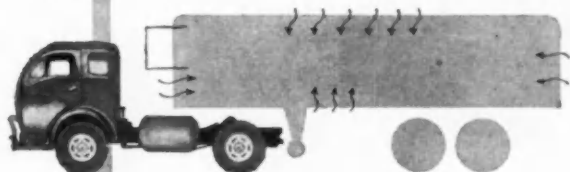


Fig. 2

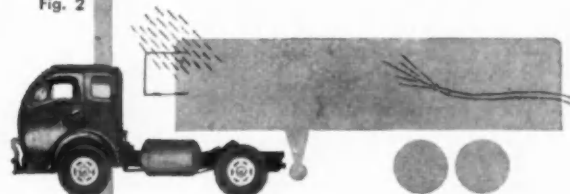


Fig. 3

Air infiltration due to pressure against leading surface when body is in motion forces warm moist air through openings in outer shell. (Fig. 1)

Vapor pressure differences force in moisture whether the cargo trailer is in motion or standing still. This is called diffusion. (Fig. 2)

Liquid water in the form of rain, steam, defrost, or wash water may also enter through any break in the inner and outer shells. (Fig. 3)

Armstrong INSULATIONS

Fiberglas • Corkboard • Armalite

New Products

Continued from Page 232

Rectifier Kit

is for converting Leece-Neville alternator systems with *selenium* rectifiers to the new *silicon* rectifiers. New type has six small cells instead of a separate unit, gives improved alternator performance and higher

rating. Maintenance costs are reduced since the cells are hermetically sealed. In addition, any of the six cells can be replaced individually. Conversion unit can be installed in a matter of minutes, says Leece-Neville.

Contact Leece-Neville Co., 1374 E. 51 St., Cleveland 3, Ohio.

Floor Heating Pad

fits under the cab floor mat and operates off any 12 volt system. Pad

heats up to 160 deg F, keeps long-haul drivers feet warm regardless of the weather. Heating element is enclosed in Du Pont neoprene sheet for protection. Located under the cab



floor mat, it is protected from excessive wear and will not catch the driver's feet.

Contact Warm-Flor Div., P. O. Box 4331, Hamden, Conn.

Aerosol Hand Protection

forms a "protective glove" to seal out grease, dirt, paint or any other harmful or dirty material. Named Protex-A-Hand, it's made with lanolin and glycerine and comes in an aerosol can in cream form. One application is said to do the job. It is washed off along with any dirt at the end of the day.

Contact Filomina Nisson, New Products Mgr., Aerolite Products Co., 810 Martin St., Rahway, N. J. Phone: FULTon 1-4600.

Cam Angle-Dwell Meter

is for use on 4, 6 or 8 cyl engines having ignition systems of 6, 12 or 24 volts. Tester can be used without re-



moving the distributor from the car.

Contact James A. Umbarger, Pres., Fox Valley Instrument Co., Highway 27, Cheboygan, Mich.

(TURN TO PAGE 236, PLEASE)

JULY AUG
JUNE

Prevent costly vapor lock!

DON'T MISS STEWART-WARNER'S
FUEL PUMP
Summer Special

during June, July,
and
August only!

JULY

MODEL 220-A
FUEL PUMP

Now is the time to get positive protection against vapor lock that causes vehicles' engines to balk and stall. During the months of June, July and August only—

Stewart-Warner offers this top-performing electric fuel pump at a special hot-weather price! Install it now—for better engine performance all year long!

Here are just a few of the advantages that make the Stewart-Warner Fuel Pump your best buy:

Operates independently of engine! Fuel pump action accelerates when vapor appears in fuel line. Maintains an increased fuel flow until vapor is expelled.

Self priming! Starts operating the instant ignition switch is

turned. Fills carburetor float bowl before starter turns engine over. Result: smoother flow, less battery drain, better mileage.

For cars, trucks, buses! Designed for use on any gasoline engine. 6-volt and 12-volt models.

**Call Your Wholesale
Supplier Today!**

Dept. UU-69, 1840 Diversey Parkway
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INSTRUMENT DIVISION
STEWART-WARNER
CORPORATION

POWER TO PROTECT YOUR PROFITS

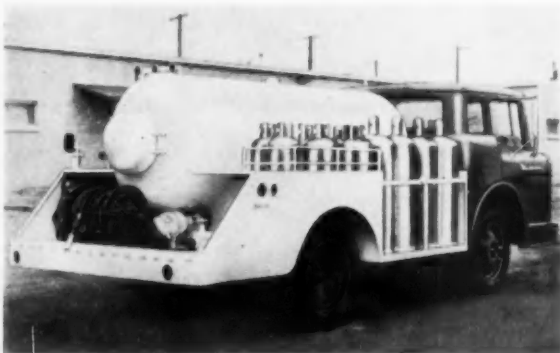


Fleet owners know that a low-priced battery is no bargain. Battery durability, dependability and cost per mile are more important considerations. ■ Profit-conscious fleet owners choose the Delco Extra-Duty. It's a dry charge battery. 100% Fresh Power. ■ The Extra-Duty is tough. It has heavy-duty plates and grids, protected connectors and a hard all-rubber case. ■ The Extra-Duty is built to last a long time, to provide extra miles per dollar of original cost. ■ Protect your profits. Choose Delco Extra-Duty, the No. 1 fleet battery in America.

QUALITY BUILT BY DELCO-REMY . . . AVAILABLE EVERYWHERE THROUGH INDEPENDENT DISTRIBUTORS ASSOCIATED WITH . . .

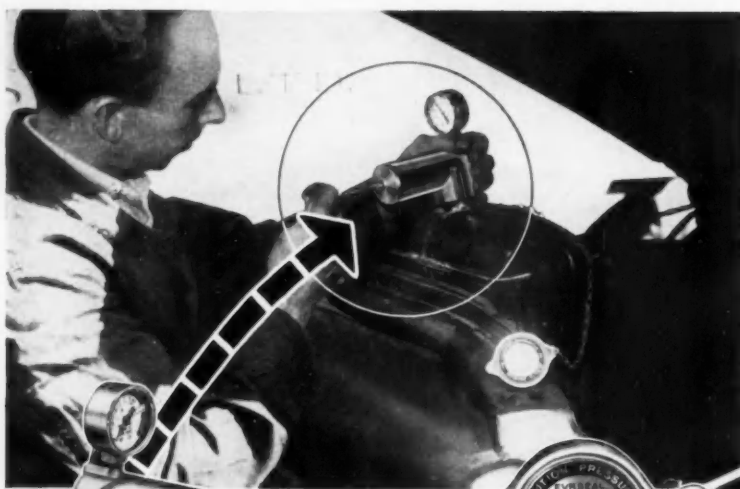
CBS Radio—Monday through Friday—Lowell Thomas Newscast for Delco Batteries





LP Gas Bulk and Bottle Truck

This new LP Gas bulk and bottle delivery truck is designed especially for servicing trailer courts having both bulk and bottle facilities. Shown here is the latest model from Master Tank and Welding Co., Dallas, Tex. Tank has a 900 gal capacity. Side racks hold six 100 lb cylinders and ten 20 lb cylinders. Two cabinets on each side hold spare fittings and valves. Plumbing, pump and accessories are built as one unit. Body here is mounted on a Ford C-550 chassis.



T-250

R-9

tightens service with Stant Tester

Tippet-Richardson Limited, Toronto, operating 72 tractor and truck units coast to coast has improved its careful maintenance program with a *Stant T-250 Precision Cooling System Tester* . . . exposed 19 defective caps . . . found head gasket and radiator leaks . . . *forestalled trouble!*

Write for report on *Kroger* findings to
STANT MANUFACTURING CO., INC.,
Connersville, Indiana,
. . . *naming your jobber.*

used on America's Finest Automobiles as
Standard Equipment for a generation



New Products

Continued from Page 234

Automotive Stethoscope

picks up engine sounds which in many cases are almost impossible to locate. It can be a real help in diag-



nosing engine troubles, as it can pick up bearing knocks, valve noise and even small air or vacuum leaks. It sells for \$2.95 postpaid.

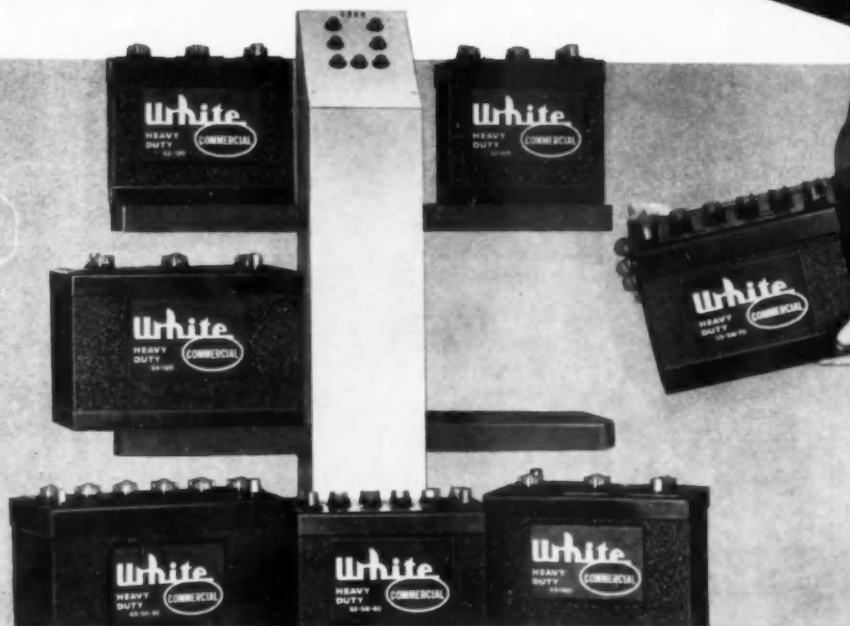
Contact *Norman W. Edmund, Pres., Edmund Scientific Co., 101 E. Gloucester Pike, Barrington, N. J. Phone: Lincoln 7-3488.*

Hydraulic Dockboard

is air operated, requires no electricity for operation. Called the Aero-Board, it speeds up loading and unloading of trucks and trailers. Two models are offered, one is installed on loading docks with permanently constructed bumper, the other on "flush" docks without bumper. The dockboard can be raised or lowered as needed. Aero-Board permits trucks and trailers to back into position with doors closed since the dockboard is in an out-of-the-way upright position. By turning the air control valve, the board lowers into place
(TURN TO PAGE 240, PLEASE)

START with the BEST

White BATTERIES



Now! get finest "new truck" batteries
at your **WHITE** Superservice Shop

Now a complete new line of top-quality batteries is being made especially for WHITE original equipment. And those same batteries are available in WHITE SUPERSERVICE SHOPS as replacements!

Regardless of the make of truck, WHITE now has a top quality battery that's exactly *right* for it. So choose your replacement from the same original equipment line of 12-

volt and 6-volt WHITE BATTERIES.

They perform longer, resist shock better... and the "WHITE" label means that your replacement battery is backed by WHITE with a full original-equipment guarantee! A typical example of the care and expert attention your truck receives in every WHITE SUPERSERVICE SHOP—the most completely equipped in the industry.

So for all replacements and top-grade accessory items, from power steering to fifth wheel, from tachograph to suspension kit, call on WHITE SUPERSERVICE. Enjoy that superiority, too, for reliable repairs and preventive maintenance. You'll be glad you did, in the long haul.

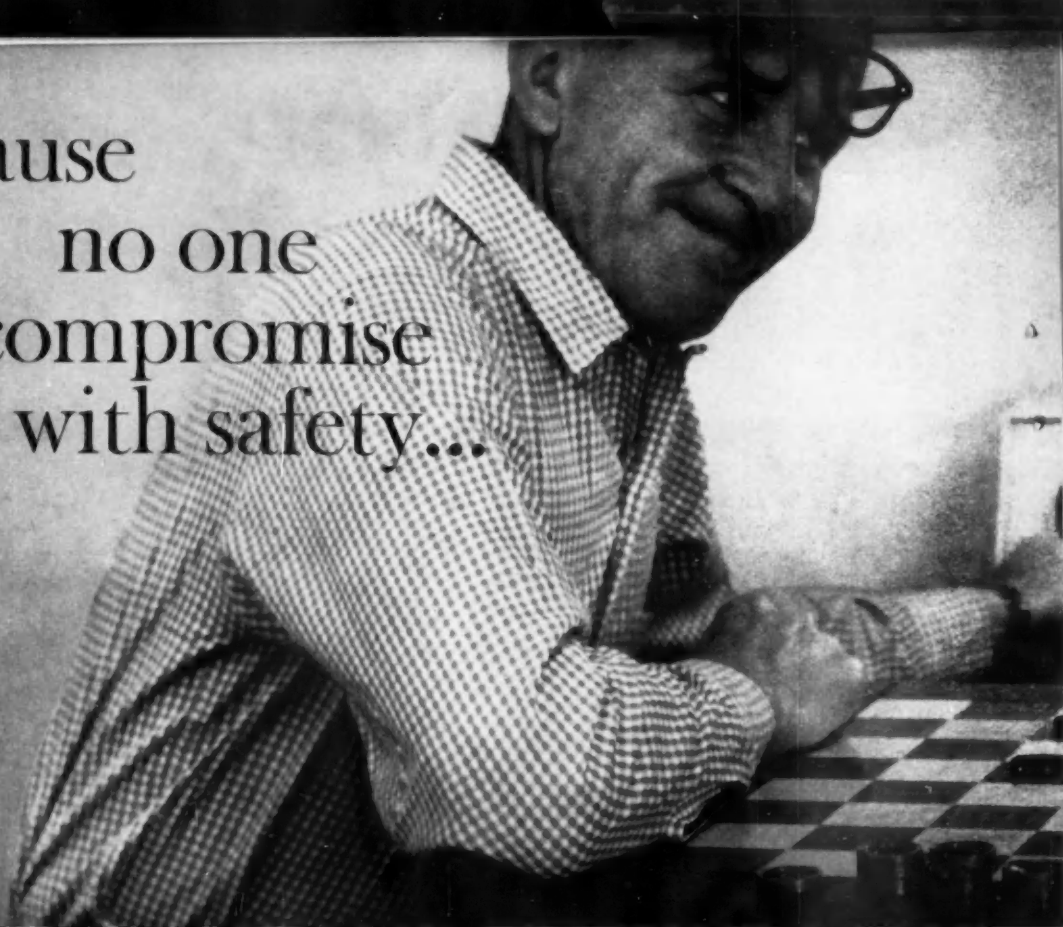
THE WHITE MOTOR COMPANY
CLEVELAND 1, OHIO

Branches, distributors, dealers in all principal cities

WORLD LEADER IN HEAVY DUTY TRUCKS


WHITE

because
no one
can compromise
with safety...



WATCH EVERY MOVE...INSIST ON

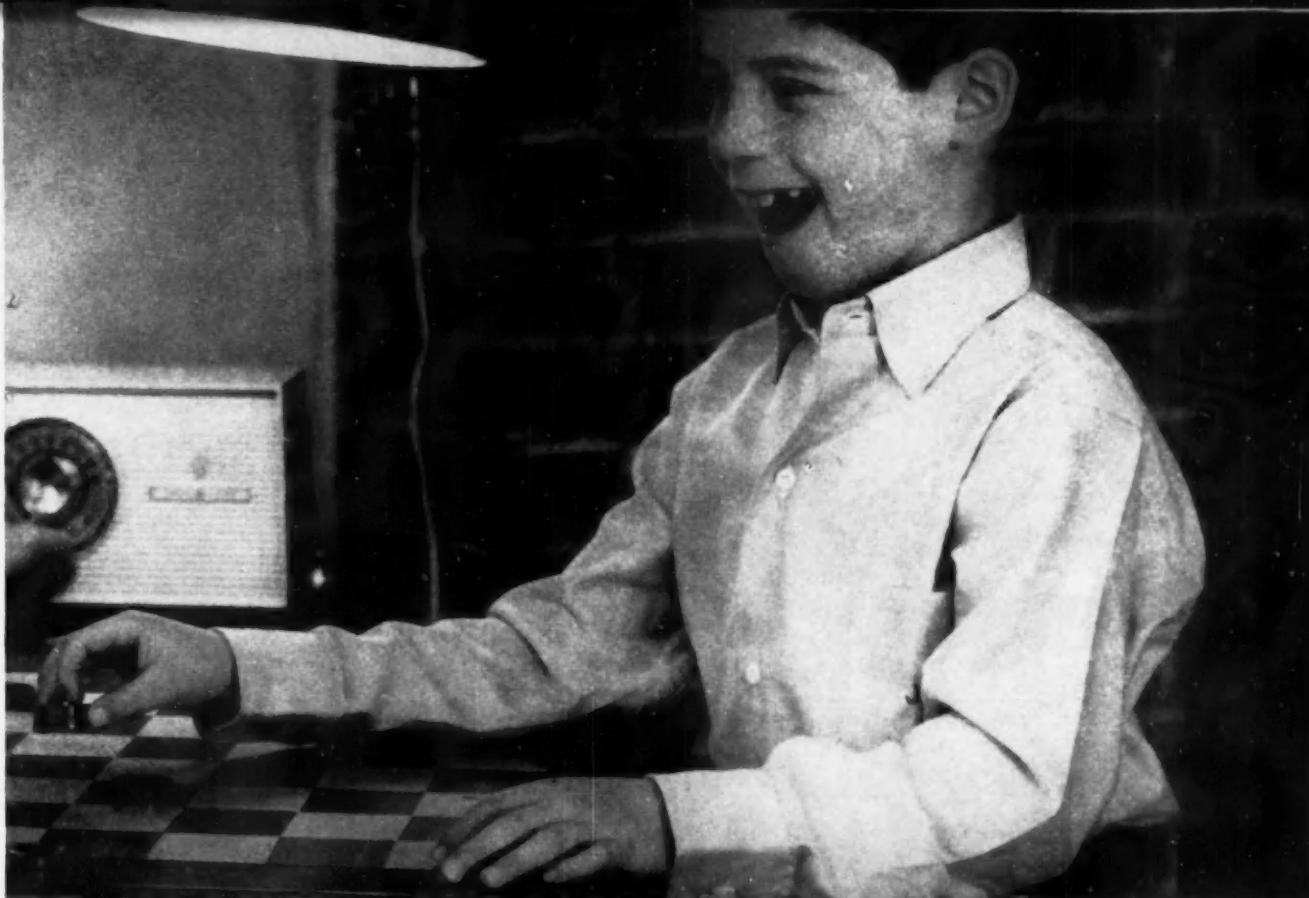


"O" RING, DUAL BULB TYPE NO. 12 M CLEARANCE LAMP—A major advance . . . both in design and in speed of bulb replacement. Signal-Stat's exclusive "Twenty-Twenty" design creates two optically perfect lamps in one. Hugs the body with less than one-inch thickness. Change bulb in five seconds without tools. Self-lubricating "O" ring secures the lens without screws or retaining ring. The first clearance lamp designed to accommodate conventional as well as exterior wiring. Waterproof! Dust-proof! Rustproof: inside and out! Exclusive "Safeguard" converts 12M to armored type.



REFLEX REFLECTORS — Newly designed and engineered by Signal-Stat to give longer life and greater reflective power. Your choice of four beautifully designed types that cover every trucking need. Three-inch shatter-resistant lens gives uniform pattern whether mounted vertically or horizontally.

- #3T1 Flush type, polished aluminum housing.
- #3T2 Thermoplastic Flex-End housing, Hermetically Sealed.
- #3T3 Polished aluminum. Armored type.
- #3T4 Steel. Armored type.

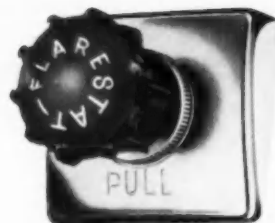


THESE NEW SIGNAL-STAT PRODUCTS



ARMORED CLEARANCE LAMPS, 11 M.

—The "Quick-Click" lens simplifies bulb replacements to a fraction of the time formerly required. No tools necessary, no screws or retaining ring. Merely press down and slide the lens to release the patented "click" lock. A pressure pad of special rubber compound tightly seals the lens to keep out moisture, dirt and dust. Flush mounting without protruding socket for easier installation. Available in one and two bulb models, steel or cast aluminum.



FLARESTAT 105 — Signal-Stat's new traffic hazard switch prevents accidents, doesn't merely cushion them. It is already original or optional equipment on thousands of trucks and passenger cars. The instant the vehicle becomes disabled, the driver quickly pulls the knob and all signal lights, front and rear, flash a lifesaving warning for half-a-mile in both directions . . . while repairs are being made, until the disabled vehicle has been removed (or in the case of trucks, while flares are being set or picked up, as required). One model fits all vehicles. Heavy-duty flasher.

Write today for free catalogue.

Signal-Stat

SIGNAL-STAT CORPORATION, 523-539 Kent Avenue, Brooklyn 11, New York

New Products

Continued from Page 236

with the front edge resting on the truck or trailer floor. The device is said to be easily installed, requires a minimum of plumbing.

Contact J. L. Kelly, Asst. Gen. Mgr., Freightliner Corp., P. O. Box 3591, Portland 8, Ore. Phone: CA 7-5511.

Trailer Dump Body Lock

fits all makes and models of trailer dump bodies. Called the Trailco Loc-O-Matic, it locks the dump body to



the chassis while the trailer is on the road. This is said to prevent wear in body and chassis and in the packing glands of the hydraulic lift. Clamps release automatically when hydraulic pump is started for dumping and relock automatically when dump is returned to its down position.

Contact Louis A. Eaton, Vice Pres., Trailco Mfg. & Sales Co., Hummels Wharf, Pa. Phone: DRake 4-011.

Flexible Radiator Hose

replaces tailor-made hoses kept in stock for each model truck. The new Wire-Inserted "Green Stripe" Radiator Hose comes in 10-ft lengths, can be cut to the exact length needed for a particular truck. Hose is completely flexible, comes in sizes from one to four inches inside diameter.

Contact The Gates Rubber Co., Denver 17, Colo.

Aluminum Fenders

are contoured for better splash control. They are single piece units and are offered with or without flaps. Being aluminum, they will not rust.



They're available for dual wheel tractor-trailers, and step-down equipment.

Contact Master Tank & Welding Co., 1612 Singleton Blvd., Dallas 2, Tex.

Paint Booth Lining

saves clean-up time and eliminates strippable lacquer in paint spray booths. Lining is Du Pont Armalon TFE, a fluorocarbon coated glass fabric which is bonded to paint booth walls with Fairprene No. 5140 cement. Lining is said to pay for itself in five months as man hours required to peel off overspray are reduced by one-third. Paint layers are removed easily by hand, Du Pont reports.

Contact Fabrics Div., E. I. du Pont de Nemours & Co., Wilmington 98, Del.

(TURN TO PAGE 244, PLEASE)

Sensory 3 way signaling Torque Wrench



- ✓ Faster than the fastest.
- ✓ Lasts twice as long.
- ✓ Accurate for life.

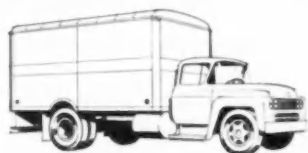
3 Feel it

The handle releases momentarily when pre-set torque is reached.



Quality Tool Suppliers Handle These Flexible Beam Torque Wrenches

Write Torque Wrench P. O. Box 600 Addison, Ill. . . . for catalog sheet.



The **UNISTEEL TASKMASTER**, one model of the world's largest family of steel and aluminum van bodies built by Unisteel Body Company. Lengths 9' to 28'; width 83" or 90"; heights from 66" to 96". Also, a wide range of rear end, lining and accessory options.

WHEN ONLY ONE SIZE WILL DO

The right size is important in van bodies, too. With Unisteel's volume component production and custom assembly, you can get exactly the body you need . . . for the job you must do. *Cargo Engineered* Unisteel Truck Van Bodies offer a choice of more than 1500 combinations. There's a right model and size for you. See your nearby Unisteel distributor for complete story.



UNISTEEL BODY CO.

Dept CCJ-659 • GALION, OHIO • Factory at Wapakoneta, Ohio, U.S.A.

STEEL OR ALUMINUM VAN BODIES • LEVEL FLOOR • WHEELHOUSE • CLOSED TOP • OPEN TOP • REEFERS • EXTERIOR POSTS • SMOOTH PANEL • RIBBED PANEL • VERTICAL PANEL • BEVERAGE • NUMEROUS OPTIONS

Only with the ALL NEW

Dayton Thorobred **DEEP SKID XDL**

do you get these exclusive features!



DAYTON'S All New, All Nylon Deep Skid XDL represents an entirely new concept of "highway lug" type tire design and engineering . . . for *greatest power-wheel mileage* with maximum anti-skid performance in severe, fast scheduled, super highway service.

Here's How The New XDL Tire Has Performed In Rugged Tests . . . "134,000 miles before retreading on a year round, coast to coast run . . . a real tire-killing, two man, around the clock operation".

"70,000 miles—and still running—on a single-axle drive

tractor on fast-scheduled super highway route".

The Reason For This Outstanding Performance is a new tread design that gives you (1) scientifically engineered high-angle lug design that maintains uniform load support within 5.07% of the maximum attainable, (2) greater load-supporting rubber-to-road contact than any tire of a like type and (3) a 59% deeper non-skid tread. Similar types of highway lug tires have 100% tread contact at one instant, only 42% the next. This creates excessive "heel-and-toe" wear (the result of variations in the amount of tread in contact with the road

at any one time), and rapid wear.

More And Better Recaps At Lower Cost is another advantage found only in the Dayton Thorobred Deep Skid XDL. The exclusive retread dam permits successful top treading without rubber overflow between the shoulder buttresses, which often results in poor tread adhesion. It assures new tire appearance to top treads and eliminates the need for expensive full treads. And the XDL's super-strength, electronically-processed Nylon cord body is virtually indestructible . . . is built to take retread after retread for lowest cost per mile operation.

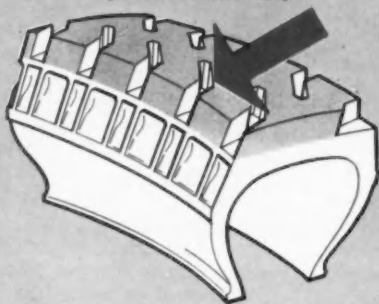
Dayton Thorobred



The Dayton Rubber Company • Tire Division • Dayton 1, Ohio

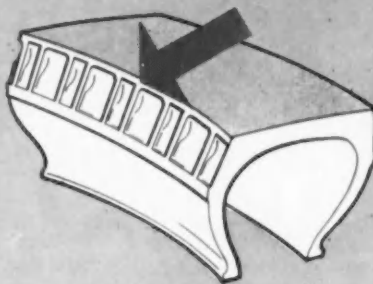
A COMPLETE LINE OF TRUCK AND PASSENGER CAR TIRES

HIGH-ANGLE CROSS RIB DESIGN (PATENT APPLIED FOR)



gives more constant tread rubber support than any similar tire . . . puts more rubber on the road for longer, slower, more even wear.

EXCLUSIVE RETREAD DAM (PATENT APPLIED FOR)



provides perfect shoulder-to-shoulder foundation for low-cost top tread . . . eliminates necessity for expensive full tread —the only way similar competitive tires can be retreaded.

YOU SAVE IN TWO WAYS WITH XDL'S

1. You get *more mileage* per original tread, due to a 59% bonus in tread depth plus the slow wearing advantages of Dayton's new—and exclusive—high angle lugs.
2. You get *more—and better—recaps*, at lower cost, with inexpensive top treads due to Dayton's exclusive re-retread dam and super-strength Nylon cord body.

Ask your Dayton Distributor to explain all of the advantages of the amazing new Deep Skid XDL tire . . . and how they will mean phenomenal savings to you in *your* operation.

Tires



AND TUBES

COMMERCIAL CAR JOURNAL, June, 1959



New Products

Continued from Page 240

Air-Powered Hoist

has a 1000 lb capacity and is fully portable. It weighs only 39 lb, has a lifting rate of 45 ft per minute. Standard equipment includes pull-chain throttle and swivel-mounted top and bottom hooks. A variety of optional equipment is offered.

Contact Ingersoll-Rand Co., 11 Broadway, New York 4, N. Y.

Tire Repair Materials

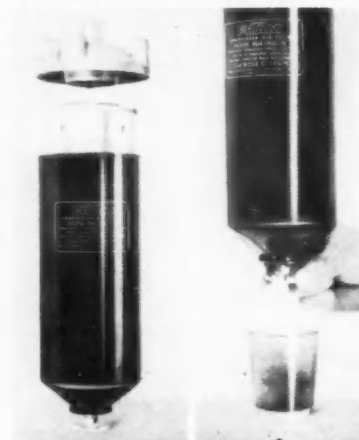
are for passenger and heavy service tires. Made by U. S. Rubber Co., they're designed to increase handling ease and shop efficiency. One feature of the line is a new stronger vulcanizing cement which is quick-drying. It is especially suited for coating exposed fabrics before repairing or retreading. The complete line includes retreading gums, repair gums, repair

fabrics, tubeless tire repair units and section repair curing bags.

Contact John W. Lynch, Mgr., Tread Rubber & Repair Materials, United States Rubber Co., 1230 Ave. of the Americas, New York 20, N. Y. Phone: Circle 7-5000.

Compressed Air Filter

removes moisture, oil and contaminants by separation rather than by absorption. Made by Fram, it can be used on any compressed air lines with pressures up to 125 psi. Water and oil is drained off easily (as shown)



and the cartridge is easily changed when necessary.

Contact Mark A. Fuller, Sales Promotion Mgr., Fram Corp., 105 Pawtucket Ave., Providence 16, R. I. Phone: General 4-7000.

AUTOPULSE

THE ORIGINAL ELECTRIC FUEL PUMP

LAUGHS
AT
VAPOR LOCK
and
ALTITUDE

2 models fit all gasoline engines

There is no highway in America that doesn't carry Autopulse-equipped commercial vehicles.

And why not? Over 32 years, Autopulse has proved that it licks vapor lock, and altitude.

Both models—6-volt and 12-volt—have built-in pressure regulation.

Low in price . . . easy to install . . . they deliver as long as there's gasoline in the tank.

At AEA Wholesalers everywhere

A **AUTOPULSE**
Division
WALBRO CORPORATION
Cass City, Michigan

Body Cleaning Chemical

is for use on aluminum and stainless steel truck and trailer bodies. Named E-Z Brite, the chemical is said to remove all types of dirt, weathering stains, and diesel soot in one application. It also dissolves oxidation or corrosion to restore original "bright finishes" to the body. It's applied with a spray gun and is said not to streak or injure the metal finishes painted signs or decals.

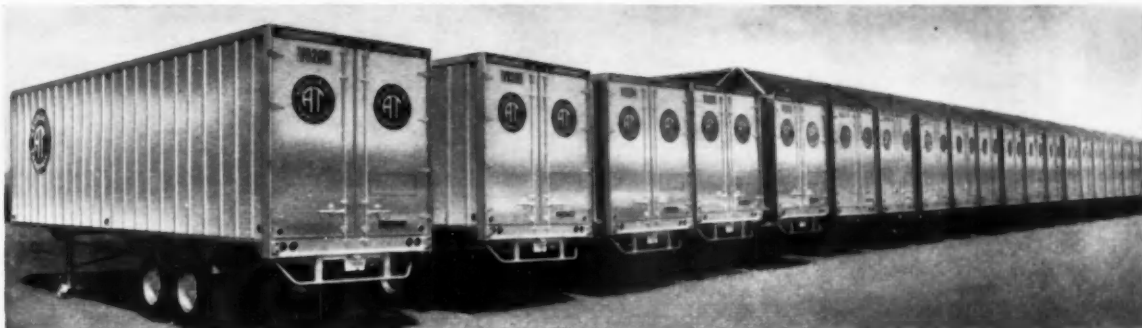
Contact Cross Chemical Co., 5332 McKinley St., Detroit 8, Mich.

Floor Absorbent

is an economy-grade mineral absorbent called Auto-Dri. It's used where higher absorbent efficiency is not required. It is said to absorb liquids without getting mushy.

Contact L. M. Mank, Minerals & Chemicals Corp. of America, Essex Twp., Menlo Park, N. J. Phone: Liberty 8-2200.

(TURN TO PAGE 246, PLEASE)



Part of Associated Transport's New 1959 Volume★Van Fleet—With Exterior Post Aluminum Panels, New S2 Tandem Underconstructions

125 New Fruehauf Volume★Vans SOLD To Associated For Better Customer Service!

"Better service to our customers through the use of the most modern hauling equipment is the reason behind our purchase of new Fruehauf Volume★Vans," says B. M. Seymour, President of Associated Transport, New York. "These higher capacity units will also enable us to handle the increased tonnage we expect in 1959 and '60."

In conjunction with its stepped-up sales program this year, Associated has initiated a large scale equipment modernization program involving the purchase of 125 new, 1959 Fruehauf Volume★Vans, and 15 city delivery vans.

Associated's fleet of 2650 Trailers is nearly 100% Fruehauf. Last year the firm moved over 3 billion pounds of freight some 91 million miles on its 25 thousand miles of regular routes in the East and Midwest.

The Trailer best geared to volume like this is the totally new, totally different 1959 Fruehauf



Fruehauf's new 1959 Volume★Van line has fully interchangeable steel and aluminum components—giving you the weight and strength you need at the price you can afford!

Volume★Van. Full interchangeability of steel or aluminum components from sidewalls to crossmembers, plus $2\frac{1}{16}$ " of extra inside height, plus full 93"-wide rear door openings, plus a one-piece leak-proof roof, plus aircraft type design that produces unmatched weight savings, make the Fruehauf Volume★Van the most radically new and efficient Trailer of 1959. And there is a choice of the completely stable Fruehauf Safety Air Suspension or the new, lightweight S2 Leaf Spring Tandem.

Send the coupon or call your Fruehauf Branch for all the facts.



For Forty-Five Years—More Fruehauf Trailers On The Road Than Any Other Make!

World's Largest Builder of Truck-Trailers

FRUEHAUF TRAILER COMPANY

10940 Harper Avenue • Detroit 32, Michigan

SEND FULL FACTS, WITHOUT OBLIGATION, ON THE NEW LINE OF INTERCHANGEABLE VOLUME★VANS.

Name _____
Company _____
Address _____
City _____ State _____

New Products

Continued from Page 244

Non-Corrosive Electrolyte

is claimed to improve a battery's "kick," recovery and reliability. Called Blue-Dyne, it is not a battery additive or so-called "miracle product," says the manufacturer. It is a non-corrosive electrolyte which is used in place of conventional elec-

trolyte in both new and old undamaged batteries.

Contact Blue-Dyne Div., Neirad Industries, Inc., Darien, Conn.

Injector Comparator

rates fuel output on all GM diesel engine injectors. It's called the Detroit Diesel Injector Comparator, No. J7041. Unit is automatic and self-contained, can be used to match injector sets with the same output. By using the Comparator, fleets can cut down injector replacements since an

old one can be checked against a new one or other ones in the same set.

Contact Kent-Moore Organization, Inc., 28635 Mound Rd., Warren, Mich.

Dry-Cleaning Solvent

is for cleaning electric motors, generators, armature commutators, etc. It's called Gunk's Neo Met and is said to be one of the least toxic volatile solvents. It's non-flammable, comes in a pint can with squirt-spout.

Contact Gunk Laboratories, Inc., 630 N. Harlem Ave., River Forest, Ill.



SAFE!

CLEAN AUTOMOTIVE & INDUSTRIAL PARTS

3 WAYS!

1. Continuous Flow Hose
2. Air Agitated Soaking Tank
3. "Super Power" Jet Air Gun

A must in every service shop!

Kleerflo SUPER CLEANMASTER

MODEL 50

Write for Literature:

America's Foremost Producer of Parts Cleaning Equipment

PRACTICAL MFG. CO.

DEPT. J-6 2840 4th Ave. S. Minneapolis 8, Minn.

Model 30 (less Jet Air Gun) also available

**BUY
BONDS**



Roll-Up Doors

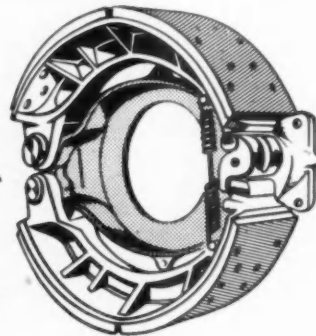
are for city and multi-stop delivery trucks and trailers. Doors come in four ¾-in. plywood panel sections. They're pre-drilled to speed assembly, are prime coated with resin sealer and come complete with operating mechanism and door catch. Features of the "Cee Dee" doors are said to be faster deliveries, better freight protection, elimination of swinging door hazards and lower maintenance costs.

Contact Truck-A-Door Co., 33 Henry St., Detroit 1, Mich.

A REPUTATION FOR

DEPENDABILITY

— EARNED BY EXPERIENCE



"Save the tough jobs for Scandinavia" is more than a claim. Scandinavia ZT-Molded Combination Sets have earned their reputation in the heavy-duty field. The die-pressed ZT segments have a polishing effect on brake drums which is reflected in a definite reduction of heat-checking and fading. The specially compounded molded segments, combined with ZT, result in dependable braking and long life — even in extra-heavy-duty service.

**BRAKE
BLOCKS**

SCANDINAVIA

**BRAKE
LININGS**

DIVISION OF SCANDINAVIA BELTING CO. 744 Broad St., (P.O. Box 464) Newark 1, N. J.
Warehouse: 250 Central Ave., Newark 1, N. J. ★ Plant: Charlotte 1, N. C.
Branches in Cambridge, Mass., Indianapolis, Indiana and Cleveland, Ohio

Tandematic Drive gives Checker Express

"considerably more traction"



Shown at left is a close-up of one of the Tandematic Drives used by Checker Express. Tom Murphy (inset) says: "Our drivers won't drive a tandem with trailing axle unless it has the Gates Tandematic Drive on it."

Driving dead axle also gives —

- ★ Increased tire life
- ★ More braking power—greater safety
- ★ Increased wheel-base parts life
- ★ Reduced road shock and wheel hop

These are the major advantages that Tom Murphy of Checker Express Co., Milwaukee, Wisconsin, attributes to the use of Gates Tandematic Drive on his trucks.

Mr. Murphy says, "We decided to try Gates Tandematic Drive to get more traction on the tandem axle during the winter months. The Tandematic Drive is simple, economical, and safe to install. It's also easy to remove

for tire changes. We've put 75,000 miles on them and they're as good as new. We feel the belts will go well over 150,000 miles with no trouble.

"We also get considerably more traction, longer tire life, more braking power, smoother ride, and longer life in bushings and bearings—and Gates Tandematic Drive helps us keep faster schedules the year 'round."

Gates Tandematic Drive gives you BOTH . . .

Specially hardened Red Groove Pulley

Has more than 3 times greater life than ordinary pulleys. (Gates Red Grooves have a hardness rating from 430 to more than 600 on the Brinell hardness scale.) Roll-on feature (Pat. Pend.) Split construction permits pulley groove to be offset, so belt can be rolled on at high tension easily and safely.

Self-cleaning. Open design insures peak operating efficiency at all times.



Rib-Top V-Belt

Protective ribbed top: Resists sandblast effects from wheels.

Flex-Weave cover: Protects vital core of belt.

Concave sidewalls: Concave sides increase belt life.

Special tensile cord construction: Greater resilience of Gates tougher tensile cords enables belt to absorb shocks and carry extra heavy loads.



The Gates Rubber Company • Denver, Colorado

Gates Rubber of Canada Ltd., Brantford, Ontario

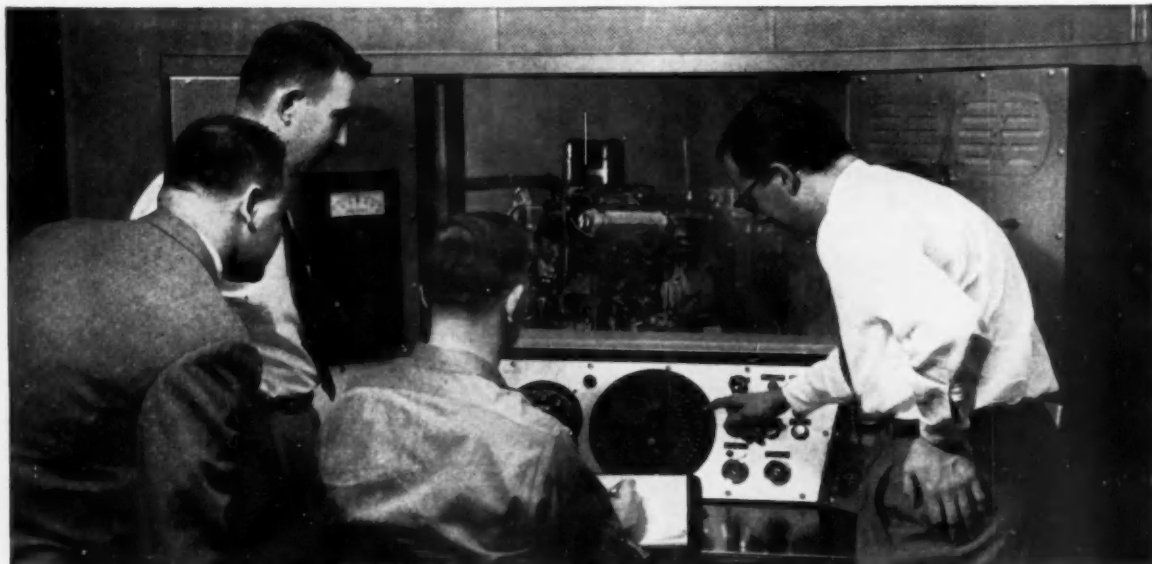


World's Largest Maker of V-Belts

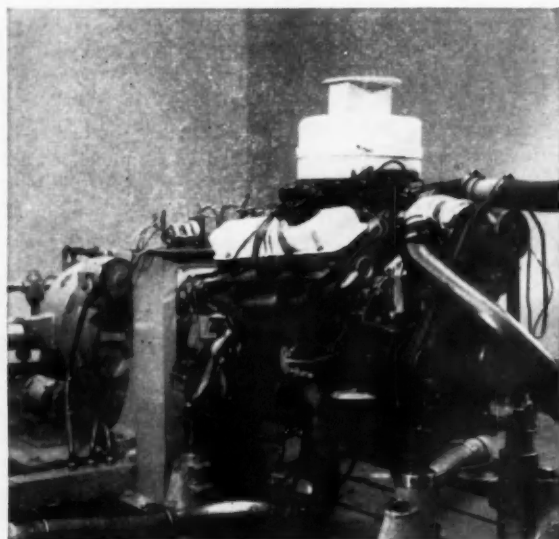
TPA 418

Gates Tandematic Drive

Here's how Champion solves the important of correctly matching spark plugs to



1. In a test lab at the Champion Engineering and Research Center, engineers begin the important and difficult job of matching spark plugs to a new engine. The first step is to attach the engine to a dynamometer to run tests that simulate actual driving conditions.



4. Selected plug types are thoroughly tested in the engine at various speeds, while Champion engineers carefully check for fouling, pre-ignition, and other malfunctions. Usually, many rounds of redesigning and in-the-engine testing take place before Champion engineers are satisfied that they have come up with a spark plug type that correctly matches the engine's requirements.

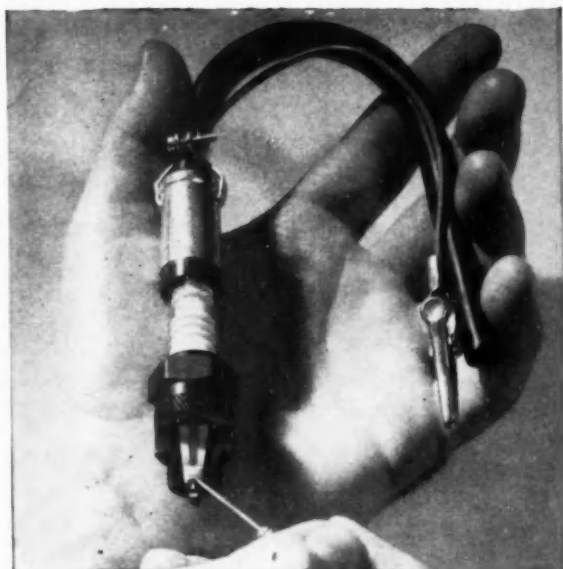


5. Even after this extensive laboratory testing, Champion engineers are still not completely convinced. Limited quantities of the selected plug types are produced and distributed to commercial fleets for actual on-the-job testing. Only after thorough road testing proves that they correctly match an engine's requirements are Champion spark plug types recommended for use in the engine.

CHAMPION SPARK PLUG COMPANY

problem engines

No matter what makes of engines you use, or how you use them—there are Champion spark plug types designed to meet their requirements! Here's how Champion engineers do it—



2. **Champion engineers** run a series of tests using spark plugs containing tiny thermometers. These thermometers, or *thermocouples*, are two fine wires about the size of human hair which accurately measure the temperatures of the spark plugs while the engine is operating! Champion's extensive development of thermocouple spark plugs, and superior "know how" in their use, is one reason why Champion more precisely matches spark plug types to engines than any other manufacturer.



3. **From results** of thermocouple tests, Champion engineers determine the engine's spark plug temperature requirements for top performance. They then select or design spark plug types to meet these requirements. Spark plugs must run hot enough in the engine at low speeds to burn away carbon deposits, but cool enough at high speeds to guard against preignition and excessive electrode wear.

Champions give you better ignition performance and longer spark plug life because Champions are designed to meet the requirements of specific engines.

If you aren't sure which Champion plug types are best suited to your local operating conditions, call a Champion representative. He'll help you select the Champion spark plug types that are *correctly matched* to the requirements of every engine in your fleet. (Champion designs spark plug types for *every* make of truck and car!)

Use this free Champion service to improve ignition performance and cut down spark plug replacement costs. Call your Champion representative or supplier, or write Champion at Toledo 1, Ohio.

18 OF 21 TRUCK MAKERS INSTALL



CHAMPION

SPARK PLUGS

TOLEDO 1, OHIO

**Melt off
grease
gum
lacquer
carbon
—in minutes!**



That's all it takes — minutes — with Oakite Saturol, the new solvent cleaner. No heat necessary, no overnight soak, no hand-brushing.

For cleaning pistons, valves, filters, gears, pumps, carburetors and other small parts, Oakite Saturol is the perfect solvent. It takes off everything right down to the bare metal, even paint, varnish, gasket compound. Does it quickly — in ten minutes to half an hour depending on condition. Does it safely — with a high flash point. Does it economically — with a floating seal to assure long life.

Besides large and small drums, Oakite Saturol comes in a special 6-gallon pail, as shown above, for trial or bench work, complete with immersion basket. For more details, call your local Oakite man or write to Oakite Products, Inc., 40B Rector Street, New York 6, N.Y.



In our 50th year

Export Division Cable Address: Oakite

Technical Service Representatives in Principal Cities of U. S. and Canada

**FITZGERALD
GASKETS**
have the
answer

*First with the best replacement gasket
Fitzgerald Fused-Aluminum Steel and As-
bestos Gasket with "built-in" SEALABILITY.*



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THE
ADDED
EXTRA

Craftsmanship

The Fitzgerald Manufacturing Co.

Torrington, Connecticut

Branches and Warehouses

Los Angeles, Calif.—Chicago, Ill.

Canadian FITZGERALD Ltd., Toronto, Canada.

ROVAN ALL
ELECTRIC

truck refrigeration units

Economical, Around-the-Clock Refrigeration
on Truck Engine or AC Power Plug-In



MODEL CE 90S

6 MODELS to meet your particular delivery
truck needs

Ask your Truck Dealer or Body Builder to
get you the Complete story on Rován Units.

Manufactured By:

THE FRANK-DEWEY COMPANY, INC.

12334 STARK ROAD

LIVONIA, MICHIGAN

GAfield 2-6600

"Our ReoMatic Transmissions deliver when a stick-job can't"

reports Robert Shaw of Clayco Concrete Co.,
Kansas City, Mo., in telling of Reo Transit-mixers with
Allison Fully Automatic Transmissions.



The day after a heavy rain is a day of opportunity to transit-mix operators. Contractors are anxious to get foundations and floors poured the moment the sun shines. Yet, stick-shift trucks bog down in the saturated ground surrounding most building projects.

"We can send our ReoMatic Reo mixers anywhere almost any time," Shaw says. "Even with 5½-yard loads — that's about 42,000 GVW — we can pull in and out again without a hitch after a heavy rain. It's this kind of service to customers that helps our business profits grow."

Shaw bought two Reos with ReoMatic transmissions: 16 weeks later purchased four more, and eight weeks later two more ReoMatic-equipped mixers were added to his fleet.

"It didn't take us long to see how superior the ReoMatics were over the stick-jobs," Shaw said. "Even after 7,000 rugged miles, we haven't spent a cent on engines, transmissions or brakes except for routine Preventive Maintenance. With the built-in Retarder, our men rarely touch the brakes

except for full stops. Also, we've eliminated clutch troubles entirely."

It's not only the owners who praise the ReoMatic transmission. It's popular with drivers, too, according to Clayco's veteran driver Dale Emphenour:

"When you're backing a loaded 5-yard rig up a steep ramp, you want equipment that won't let you down," he says. "Our new ReoMatics are great in spots like this—up and down for another load much faster than stick-jobs. And when we're pouring curbs, the ReoMatics let us move at speeds to suit the men at the forms. This does away with lumping and gives you a better job."

Other potential savings, too, become a reality with the ReoMatic. With the torque-converter absorbing most of the shocks, axles, engines and drive lines are spared. Repair needs are fewer—overhaul needs farther apart.

For the full story, see your truck dealer today.

Allison Division of General Motors, Indianapolis 6, Indiana

Allison FULLY AUTOMATIC TRUCK Transmissions

Now available in



Powermatic



Torqmatic



Transmatic



Torqmatic



ReoMatic

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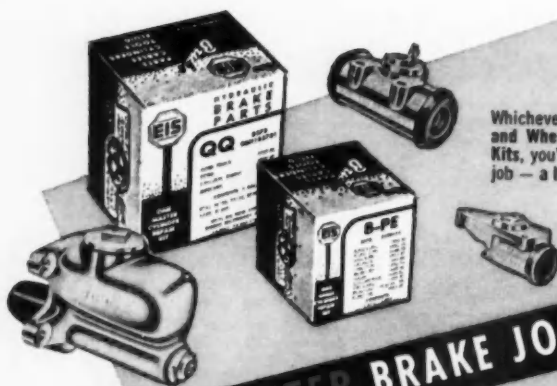
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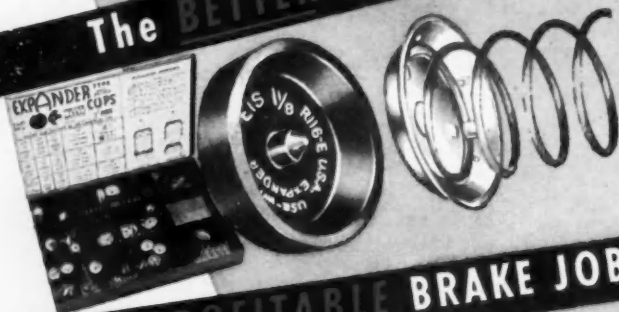


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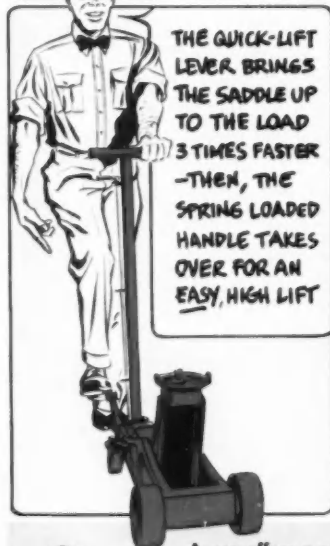
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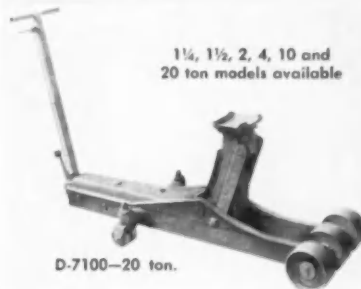
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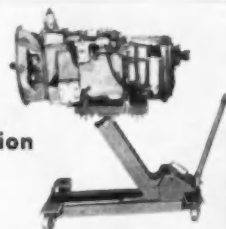
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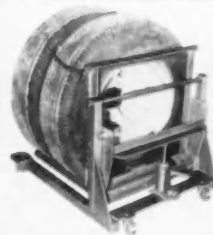
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